MAIN LINE FREIGHT DUTIES

See Advert. Page 13

MODERN TRANSPORT

"THE TIMES" OF THE TRANSPORT WORLD

IMPROVING FREIGHT TRAIN RELIABILITY

See Page 2

VOL. LXXVIII No. 2025 [*Registered at the G.P.O. as a newspaper*] LONDON, JANUARY 18, 1958 PRICE NINEPENCE

Multi-Purpose Diesel Railcar

GREAT operating flexibility has been the aim, and has apparently been achieved, in a number of new diesel railcars produced at the Duncrue Street Works, Belfast, of Ulster Transport Authority with the close co-operation of the providers of the power, transmission and control equipment, respectively Leyland Motors, Limited, Self-Changing Gears, Limited, and British United Traction, Limited. Developed out of economic necessity to meet the particular operating conditions of the U.T.A. main line between Belfast and Londonderry, which faces the threat of extinction if continuing use has to be made of conventional stock, the design concept behind the new vehicles might well provide an answer to problems faced by railway operators in various parts of the world. The specification had in mind the necessity of providing fast passenger services and the desirability of providing the power cars with the ability to haul useful tail loads. This envisaged a wide extension of the utilisation of the stock, not only by adding further passenger cars and occasional freight wagons to form larger trains when necessary, but by using the power cars as light goods locomotives where actual or potential goods traffic existed but was likely to be too sparse to justify haulage by conventional locomotives. The realisation of this conception in the U.T.A. stock was demonstrated to us in Northern Ireland last week. As a fast passenger train comprising four power cars and a dining-car of about 184 tons total weight and 1,100 installed horsepower, it showed an acceleration performance and top speed (90 m.p.h.) well able to maintain the new scheduled time of 105 min. for the 90-mile Belfast-Londonderry run with five intermediate stops. The present steam train schedule is 135 min. With three additional trailer cars coupled, which increased the total weight to 280 tons, speeds around 40 m.p.h. were quickly reached and comfortably held on level track. Ability of each power unit to haul a tail load of 100 tons (one of the specification requirements) was demonstrated by starting the eight-car train from rest and reaching a speed of 15 m.p.h. on a 1-in-75 gradient with only two engines working.

Flexible Transmission

THIS remarkable flexibility has been achieved by the careful integration of a number of well-tried running units, namely a Leyland 275-b.h.p. turbocharged horizontal diesel engine, a Schneider-S.C.G. single-stage hydrokinetic torque converter and Self-Changing Gears bi-directional epicyclic gearbox, four-speed epicyclic main gearbox with automatic changing, and spiral bevel axle gears in a double-drive bogie. All units have been accommodated under the floor of existing U.T.A. passenger stock, with train control equipment of the type normally supplied by British United Traction and a driver's seat installed on the right-hand side of the luggage-brake or other end compartment as appropriate. The combination of torque converter and automatic gearbox provides a gradually variable ratio between the extremes provided and permits the engine to operate at a nearly constant speed, giving the desirable characteristic of constant rail horsepower. The range of four ratios in the main gearbox enables the torque converter to operate for a major part of the time close to its design point, that is, the peak of its efficiency curve, resulting in a high overall efficiency—reported to be of the order of 90 per cent—and good operating economy. That the practical problems of gear ratio selection and the automatic gear changing pattern have been resolved was indicated during the demonstration by quite imperceptible changes of gear irrespective of the regime of operation. In this new stock, of which an initial number of eight power cars is nearing completion, the U.T.A. has a vehicle of great versatility, which will be enhanced if and when the ultimate aim and logical development of applying two such power-transmission equipments per car is achieved.

CURRENT TOPICS

British Petroleum Year

ALTHOUGH 1957 was a difficult year for the oil industry, a remarkable feature was the rapid recovery made following the Suez crisis, and the British Petroleum Co., Limited, estimates that the net profits of the company and its consolidated subsidiaries for the year ended December 31 should not differ materially from those for 1956. Early in 1957, Mr. N. A. Gass, now to be knighted, became chairman of B.P. in consequence of the resignation for health reasons of Mr. B. R. Jackson, who two months later died at the age of 64. Technically, the year was marked by a number of important developments. As the year closed, the drilling barge *Adma Enterprise* was in position in the Persian Gulf ready to start drilling the first underwater test well in the offshore concession held by Abu Dhabi Marine Areas, Limited, in which B.P. has a two-thirds shareholding, and at the same time, preparations were being made to export the first shipment of crude oil from Nigeria, where appraisal drilling by Shell-B.P. Petroleum Development Co. of Nigeria, Limited, is continuing. The introduction during 1957 of big helicopters, each capable of carrying a load of 4,000 lb., considerably speeded up drilling operations in Papua, where B.P. continues its search for oil in conjunction with American and Australian interests, and in France, two companies in which the B.P. group has an interest undertook drilling programmes. Production of crude oil from both Kuwait and Persia was at a record rate in the latter months of 1957, while Iraq was producing to the limit of its Mediterranean pipeline capacity. B.P. draws most of its crude oil from these three sources.

Tanker and Terminal Expansion

IN a continuing expansion programme, B.P. ordered 26 new tankers totalling 1,150,000 d.w. tons, including seven ships of 65,000 d.w. tons and nine of 50,000 tons, all to be built in British shipyards for delivery between 1960 and 1963. The biggest ships yet launched for the company, three of 34,500 d.w. tons, went into the water in the latter months of the year in addition to six 32,000 d.w. tons vessels. Crude oil tanker terminals to accommodate the largest vessels are under development at Finnart on Loch Long and at Angle Bay, Milford Haven, for the Grangemouth and Llandarcy refineries respectively, and Kuwait Oil Company, in which B.P. has a 50 per cent interest, is building a new pier at its crude oil loading terminal at Mina-al-Ahmadi. Work is under way to increase substantially the capacity of the Kent and Grangemouth refineries and B.P. is also involved in the building of new refineries in Canada and Germany and is associating with other companies to build a refinery in Ireland and one in Turkey. Increasing activity in the petroleum chemicals field will shortly lead to the production of petrochemicals in Germany in co-operation with Farbenfabriken Bayer Leverhusen, while in France, at the Naphtachimie plant, ethylene production has been increased from 10,000 to 18,000 tons a year. At Grangemouth, where B.P. is in partnership with other companies in several petrochemical plants, work is to start shortly on a new unit to produce synthetic phenol, an important primary material for the plastics and chemical industries. A 1957 landmark for British Petroleum was the commencement of marketing in the Western Hemisphere, where more than 80 B.P. service stations have been established in Quebec Province, Canada, and a remarkable expression of confidence in the company's continuing prosperity was the oversubscription by more than 16 times of the £41 million 6 per cent convertible debenture stock issue in December.

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Exhibition Facilities Inquiry

AS we recorded in our December 21 issue, the result of an inquiry by the Federation of British Industries into the future of trade fairs in this country indicated that the majority of trade associations favoured a policy of specialised exhibitions rather than general trade fairs. At the same time, it was noted that concern was felt at the serious lack of suitable exhibition facilities in Britain and as well as drawing the attention of the President of the Board of Trade to this aspect of its findings, the F.B.I. decided to institute its own inquiry into the matter. The F.B.I. Grand Council has now approved the appointment of a committee of inquiry which will consider present exhibition facilities in this country and, if necessary, will recommend plans for extending them. Its terms of reference are: To survey the adequacy of existing exhibition facilities in the light of the recent F.B.I. inquiry, and of the possible entry of the United Kingdom into a European Free Trade Area; to ascertain the extent to which the physical, technical and other requirements of exhibitors (including location and size of buildings and sites, availability of halls at time required, physical equipment and amenities such as catering and hotel accommodation) are met by existing exhibition facilities; and, insofar as they are not met, to draw up and recommend plans for new or extended exhibition facilities, including estimates of cost and proposed location. The committee consists of representatives of the three different elements concerned in trade fairs—exhibition organisers, exhibition contractors and exhibitors. Its members are Mr. George Pollitzer (chairman), chairman of Beck and Pollitzer, Limited (as exhibition contractors), Mr. R. W. Boardman, director of F. W. Bridges and Sons, Limited (exhibition organisers), and Mr. W. Marrable, head of exhibitions department, Imperial Chemical Industries, Limited. It expects that its inquiry will take at least six months during which time it will seek interviews with trade associations which sponsor trade fairs, in order to take into account their future requirements, and will also welcome evidence from others interested.

Railway Staff Census

ACCORDING to the annual census of railway staff, compiled by the British Transport Commission - (222 Marylebone Road, N.W.1, price 1s. post free), average earnings of railwaymen in the week ended March 23, 1957, excluding clerical and workshop staff and adjusted to take account of retrospective increases in wage rates granted shortly afterwards, amounted to £11 9s. 1d., a figure 10s. 3d. higher than in March, 1956. On the same basis average earnings for railway clerical staff were: category B, £18 4s.; category A, £16 4s.; class I, £14 10s.; class 4, £9 16s. Technical staff earnings varied from £18 18s. in group C to £11 14s. in group A; those of stationmasters and goods agents from £19 4s. (category B) to £11 2s. (class 4) and of inspectors, foremen and supervisors from £19 14s. (special class) to £12 8s. (class 4). Sample average earnings in the conciliation grades were: drivers £13 17s.; motormen £14 4s.; firemen £11 7s.; goods guards £12; porters £9 6s.; signalmen from £15 2s. to £10 12s.; goods checkers £10 8s.; lorry drivers from £11 2s. to £10 9s.; gangers £12 7s.; and lengthmen £10 6s. During the 12 months to March, 1957, the number of railway employees increased by nearly 9,000 to 550,000.

East African Railways Traffic

POOR trading conditions in East African territories during 1957 resulted in a serious shortfall in the revenue of East African Railways and Harbours as estimated for the year. The estimate had been an increase of 6 to 7 per cent in traffic and revenue, whereas there was in fact a sudden fall of 6 per cent, representing £1,100,000. One of the consequences of the blocking of the Suez Canal was the diversion from the East Coast route to the West Coast route of a good deal of import traffic to the Belgian Congo, although export traffic was not similarly affected. The fall in traffic was particularly damaging to the financial working of Dar es Salaam, the terminus of the Central Line, but when he presented the draft estimates for 1958 in the Central Legislative Assembly of Tanganyika in Dar es Salaam last month, Major-General W. D. A. Williams, the East African High Commissioner for Transport, was able to announce that steps were being taken to recover this lost source of revenue from what is normally one of the most profitable long hauls. The railways will seek to offer throughout inclusive rates from port to destination with, where possible, through bills of lading. It is evident, however, that persistent salesmanship will be required to restore Belgian patronage of the route which offers faster transit overland than that from Benguela on the west coast. Road transport competition (despite much mileage over indifferent surfaces) is said to be costing the railways £600,000 per annum. The conflict here is between those who seek the maximum commercial exploitation of the roads for the benefits of trade and industry and those, including the railway administration, who claim that long-distance haulage is wasteful duplication of effort within limited overall transport resources.

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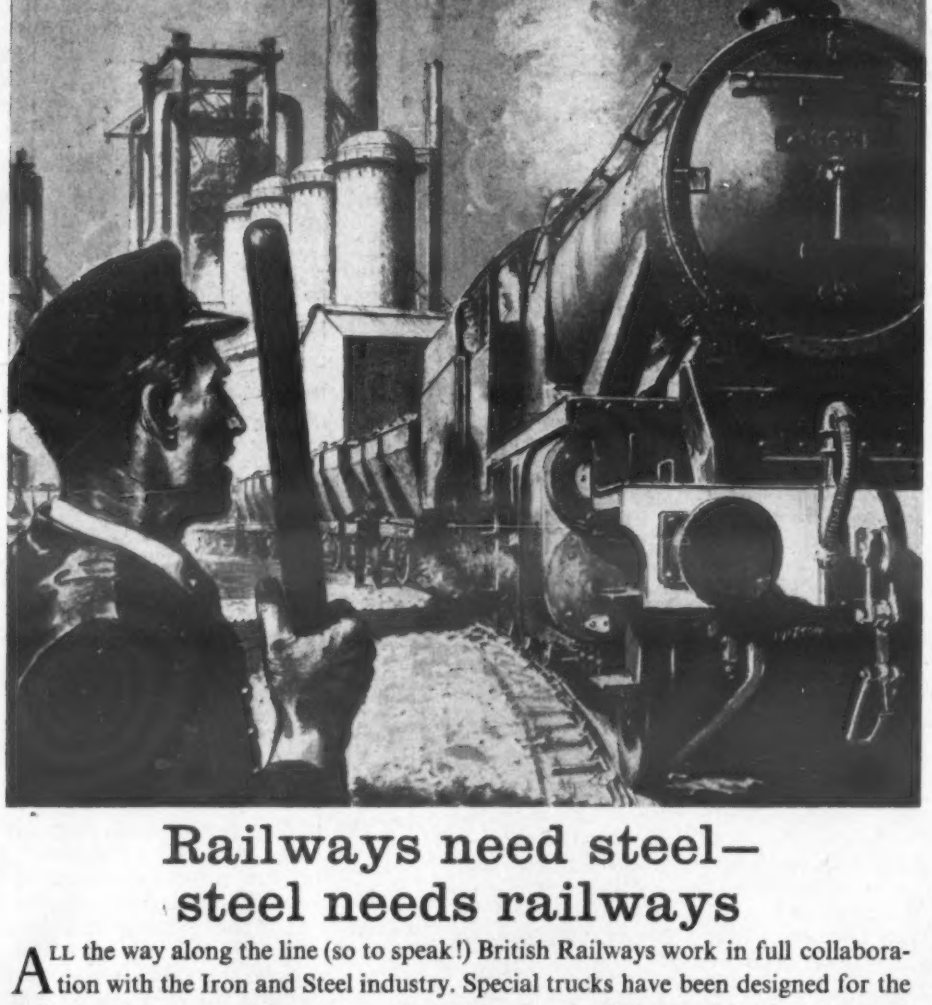

Railways need steel—
steel needs railways

ALL the way along the line (so to speak!) British Railways work in full collaboration with the Iron and Steel industry. Special trucks have been designed for the delivery of raw materials to the works; others for the delivery of finished iron and steel from the works. In fact, British Railways are always ready to consider designing special wagons for carrying any material in bulk.

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BRITISH RAILWAYS

MODERN TRANSPORT

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Improving Freight Train Reliability

IN recent months our columns have borne witness to progress and development under the £1,200 million railway modernisation plan which, with reasonable luck and freedom from interference or impediment, should be completed in the late 1960s. Freight traffic is the keynote to rail prosperity, but unfortunately the latest figures show that, despite an increase of 4 to 5 per cent in ton-miles early in 1957 as a result of the curtailment, by the Suez crisis, of fuel oil for road vehicles, rail traffic continues to decline. It is too soon to judge the effect of the revised charges structure—it only began to operate last July—but there is little doubt that the railway commercial staff are keyed-up to secure maximum advantage from the freedom from former legislative restrictions which the scheme confers. Nevertheless, there is the difficulty of attracting fresh custom, and even of maintaining existing traffic, while much of the equipment and operating resources remain out-of-date. The problem is, therefore, essentially an operating one, and in his paper to the Institute of Transport on Monday last it was the object of Mr. C. P. Hopkins, general manager of the Southern Region of British Railways, to further the idea that far-reaching improvements in freight services can well be effected without waiting for the consummation of the plan. His purpose was to show that although freight traffic would not receive the envisaged system-wide facilities until the plan had been fully implemented there was much that can be done to improve working in the meantime. Since the overall freight plan must take time to develop, he said, the immediate problem must be to prepare for the realisation of its physical side by taking steps now that will also assist its aims in the economic field.

Need to Ensure Reliability

IN urging immediate action, Mr. Hopkins did not overlook the better purely operating results of recent years which unification must have assisted. What was needed, he said, was the sort of inspired improvisation which in the past had achieved outstanding and otherwise unrealisable results; its application now was necessary to secure the reliability of service which he rightly regarded as the first essential and for which traders who sympathise with the railways in their postwar problems are constantly appealing. "To be able to give a definite delivery date and time is a most important sales point for any manufacturer, and his choice of mode of transport is more often than not governed accordingly," stated Mr. Hopkins. "While reduced cost will attract marginal traffic to rail, or will defer the moment of its loss, there can be no hope of its retention without reliability of service." Pending full modernisation reliability is much more important than speed, although speed must be the ultimate aim. How can the railways, with their diverse operations, ensure reliability, a commonplace with road transport? Mr. Hopkins pointed out that the first requisite is a sound freight train timetable providing for perfect connections, in marshalling yards and elsewhere, and as inviolable as in the passenger train timetable; no longer must there be readiness to accept the idea that the accurate scheduling of freight train traffic can be the exception rather than the rule and that freight can use up surplus line capacity once passenger train needs have been provided for. This pattern of thought might have been acceptable to trade and industry when freight had to pass by rail in any case, but it cannot apply now. In former days there was more resilience in freight traffic and not so much attention to the cost element as represented by goods in the pipeline. All that has been altered by the narrowing of marginal costs in business and the virile competition of road transport.

A Redesigned Freight Timetable

HENCE the need for a completely new approach to the problems and methods of railway freight operating. Mr. Hopkins emphasised the need for applying throughout the railways the same kind of detailed supervision that has for many years been successfully given to specific flows of traffic in particular areas, as for instance in catering for the coal, iron and steel industries of the North East and, quite recently, in the Scottish Region network based on the fitted or partially fitted freight train. Despite the fact that the modernisation plan is far from fruition the author, with his considerable operating experience, insists that the immediate objects of regularity and reliability can, in fact, be achieved with the moderate facilities now available, if only their employment be fully planned and supervised. Traffic analyses, of which there is a dearth at the present time, must necessarily precede the formulation of the new freight timetable with its comprehensive network of connections, but the idea must needs be set in operation with the minimum of preliminary analysis. Its planning will involve more expense in timetable staff, and the cost of supervising traffic operation must be expected to increase, for supervision must be intensified at marshalling yards and other connecting points and continued in the control offices because freight traffic will need much the same attention as has always been given to the passenger service.

Increased Expense More Than Justified

THE problem of additional trained staff is admitted but cannot be burked if freight train connections are to be maintained. The author points out that it represents the price of re-establishing a freight reputation, a small one to pay even if there were no counteravailing advantages. Any such costs should be far outweighed by the better use of men and equipment resulting from increased efficiency in freight services. One can agree that a planned timetable of freight trains which regularises transits by levelling the flow of traffic will reduce—or avoid—congestion and its resultant delays; it should automatically reduce the demand, in terms of time, on locomotives and wagons in transit, leading to more confident diagramming of motive power and quicker wagon turnround, yielding, in turn, surplus wagons and reducing new construction. These economies are inherent in the modernisation plan and, as the author argued, are justified as interim steps towards putting the plan into effect; trial runs of this kind are essential preliminaries to the detailed replanning of services consequent upon the new all-out marshalling yard picture. Moreover, the timetable can be adjusted progressively to accommodate the growing number of fitted trains resulting from the power-braking of freight rolling stock. Mr. Hopkins does not overlook that, with a view to the early introduction of altered and improved methods wherever practicable, immediate steps to be taken must include the same careful planning, programming and supervision of goods terminal working as he suggests for train operation. In the ensuing discussion it was pointed out that British Railways could already show a high standard of regularity in fast long-distance freight trains; this, of course, is admitted and Mr. Hopkins's appeal was for extension of the principle to much of the remaining traffic. Moreover, there is no room for smugness about existing timetables which, though excellent on paper, may not find adherence in practice. There must indeed be prompt attention to his call for action if the decline in railway freight is to be stemmed before it is past recovering.

Forthcoming Events

January 18.—Light Railway Transport League. Paper by Mr. A. K. Tarry, "The Leeds Tramways." At St. Chads Church House, Abbey Lane, Sheffield. 2.30 p.m.

January 20.—Institute of Transport (Sheffield). Annual dinner and visit of president. At Royal Victoria Hotel, Sheffield. 6.30 p.m.

January 21.—Institute of Transport (North Western). Annual dinner and visit of president. At Grand Hotel, Manchester.

Institute of Transport (Birmingham G. and S.). Paper by Mr. E. Coxhead, "Organisation of a Road Parcels Service." At Exchange and Engineerinng Centre, Stephenson Place, Birmingham, 2. 6.45 p.m.

Institute of Transport (Yorkshire G. and S.). Paper by Mr. P. Wilson, "A Forecast of Future Development in Railway Operating." At Railway H.Q. Offices, Toft Green, York. 7 p.m.

Institute of Transport (Humberside). Paper by Mr. A. R. Dunbar, "American Visit." At Chamber of Commerce and Shipping, Hull. 7.30 p.m.

Institute of Transport (Metropolitan G. and S.). Paper by Mr. R. A. Wright, "Operational Research in London Transport." At 80 Portland Place, W.1. 5.45 p.m.

Industrial Transport Association. Paper by Mr. G. F. Fiennes, "Future Railway Development—with particular relationship to transits." At Royal Society of Arts, John Adam Street, W.C.2. 6.30 p.m.

Institute of Road Transport Engineers (North Eastern). Paper by Mr. A. S. C. Marks (delivered by Mr. Long), "The Design and Construction of a Modern Goods Carrying Vehicle." At Three Tuns Hotel, Durham City. 7 p.m.

January 22.—Institute of Transport (Beds, Cambs and Hunts). Paper by Mr. A. Moon, "Outlook for Oil." At Owen Webb House, Cambridge. 6.45 p.m.

Institute of Transport (Leicester). Paper by Mr. R. D. Mason, "Heavy Haulage by Road." At City Transport Offices, Leicester. 7.30 p.m.

Institute of Transport (Scottish). Paper by Mr. G. W. Quick-Smith, "Large-Scale Operation of Road Haulage." At North British Hotel, Edinburgh. 6 p.m.

Railway Students Association. Paper by Lieut.-Colonel G. R. S. Wilson, "The Railway Inspectorate." At London School of Economics, Houghton Street, W.C.2. 6.15 p.m.

January 23.—Institute of Transport (South-West Lancs). Brains Trust. At Town Hall, Leigh. 6.45 p.m.

Institute of Transport (Swindon). "Any Questions." At Town Hall, Swindon. 7.45 p.m.

Institute of Transport (East Midlands). Paper by Mr. C. S. Dunbar, "The Problem of Passenger Transport in Small Towns and Rural Districts." At Mechanics Institution, Nottingham.

Institution of Locomotive Engineers. Paper by Mr. J. C. Leach, "A New Method of Assessing the Riding of Vehicles and Some Results Obtained." At Institution of Mechanical Engineers, 1 Birdcage Walk, S.W.1. 5.30 p.m.

B.R. (Western) London Lecture and Debating Society. Paper by Mr. G. J. H. Jeffs, "London Airport." At H.Q. Staff Dining Club, Bishops Bridge Road, W.2. 5.45 p.m.

STOCKHOLM UNDERGROUND

First Scheme Nears Completion

CENTRAL LINK IN USE

WHEN the central section of the first underground railway in Stockholm was formally opened on November 24, 1957, by King Gustav Adolf VI of Sweden, as already recorded in MODERN TRANSPORT, the whole system comprised more than 30 km. of track, 39 stations, about 330 cars, a workshop at Hammarby and depots at Hammarby, Vällingby and Högdalen. It should be noted that only eight of the stations are underground stations proper, the remainder lying wholly or partially above ground and, for the most, situated in the central sections of the new dormitory districts of the Swedish capital. When fully completed the first underground railway scheme will comprise about 40 km. of double track, 11 more stations and 450 carriages. Not only was the completion of the central link a significant landmark in the transport history of Stockholm, but it was a significant date also as marking the changeover to a new fares system on both underground and surface transport routes. Hitherto there had been a zonal fare of 50 öre with one free transfer within the hour but now the whole system is divided into stages with an average length of about 1.6 km. (1 mile). The fare for one stage is 25 öre, two stages 50 öre, three and four stages 70 öre, five, six and seven stages 85 öre, eight to 10 stages 1 kr., 11 to 13 stages 1 kr. 10 öre and 14 or more stages 1 kr. 20 öre. Stockholm has thus broken away from the flat fare system prevalent in Europe and, indeed, on urban transport in the Americas.

One of the underground trains built by Svenska Järnvägsverkstäderna on Råcksta Viadúct

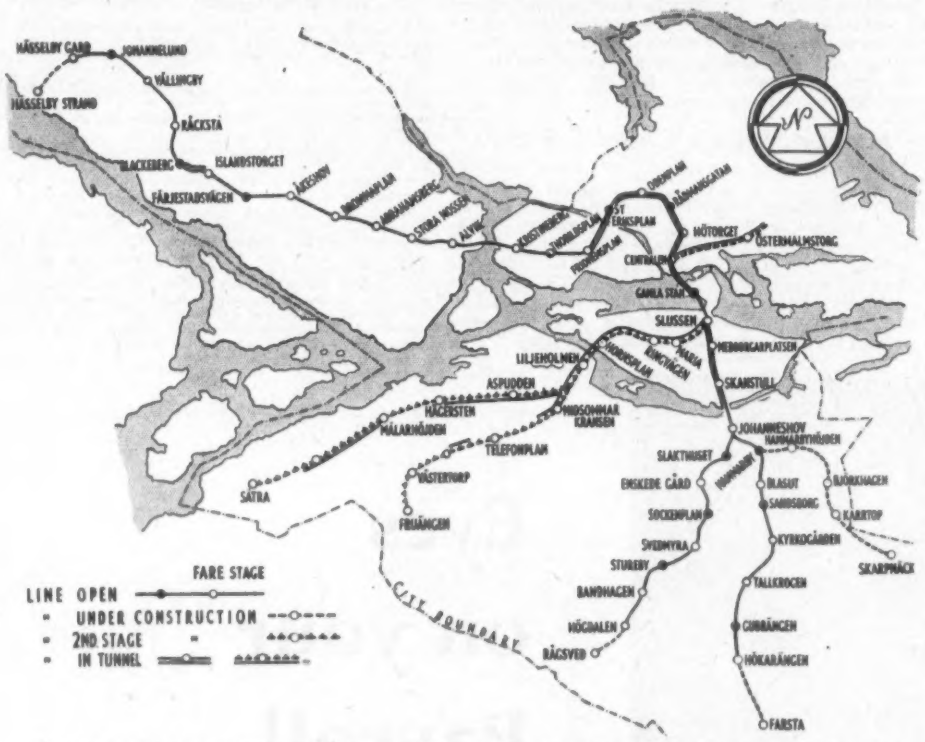
Construction of the 2.1 km. between Kungsgatan, or as it has now been renamed Hötorget, and Slussen began in November, 1951, before, indeed the main northern section of the line to Vällingby had been brought into use. As was explained in articles in MODERN TRANSPORT of November 8 and 15 and December 27, 1952, the problems of constructing the connecting section were numerous if only because the greater part of the work had inevitably to be carried out below the water table level, while there were other soil difficulties. In addition to the work under water there was also that over the water. The south island of the city is very hilly and the underground tramway at Slussen which was opened in 1933 and converted to true railway operation on October 1, 1950, finished just above lake level. To connect the projected underground with it it was decided to build a new bridge for the Swedish State Railways to the west of the existing railway bridge and to make a new tunnel inland from the end of the new bridge to connect with that undertaking's tunnel near Stockholm South goods depot. The old bridge would then be made available for the underground trains and the link with their existing tunnel would be simplified. It should perhaps be recalled at this stage that the Stockholm municipality has been responsible for the construction of all the works of the underground system, Stockholm Passenger Transport being concerned with equipment and operation.

Further Extensions Imminent

The newly opened section has, in fact, cost the municipality Skr.117 million (£80 million) out of the kr.260 million which it is expected to have spent when the whole of the first stage has been completed by the end of next year. The works which remain to be completed include the branch from Hammarby to Skarpnäck (3.8 km.) on which a start was made in November, 1956, and which should be ready by the end of this year. Meanwhile this autumn should see the extension of the western line from Hässelby Gård to Hässelby Strand. When first opened in October, 1952, this line terminated at Vällingby, the extension to Hässelby taking place on November 1, 1956. In the south, too, there have been progressive extensions with more to come. The Stureby service was continued to Högdalen on November 22, 1954, and is now to be extended to the new residential area of Rågsved and possibly beyond to Hagsätra and Älvsjö, while what may be termed the main line to Hökarängen is being continued to the rapidly developing Farsta, a work which should be finished by the end of 1959.

Meanwhile there is an extensive system of connecting bus and tram services. In the case of the latter these connect not only with the nearest interchange point but sometimes also, by dint of cross-city operation, with other and more remote key points. Thus Mälarhöjden and Fruängen away in the south-west not only have their long established tram routes to Slussen, but also direct services to Fridhemsplan, an important interchange point on the western underground line. Both Mälarhöjden and Fruängen are included in the second underground railway scheme for which the estimated cost is kr.360 million. It is shown on the accompanying map and will run from Östermalmstorg to Sätra and Fruängen. Its route will be common with the existing underground from Centralen to Slussen and it was with this in mind that the central section was

(*Continued on page 12*)



The layout of the underground system of Stockholm Passenger Transport showing also the second scheme scheduled for completion in 1965 and the newly introduced fare sections. There is an overlapping section between Hötorget and Centralen for passengers to and from the south and north respectively

The upper platform of the new two-level station at Centralen

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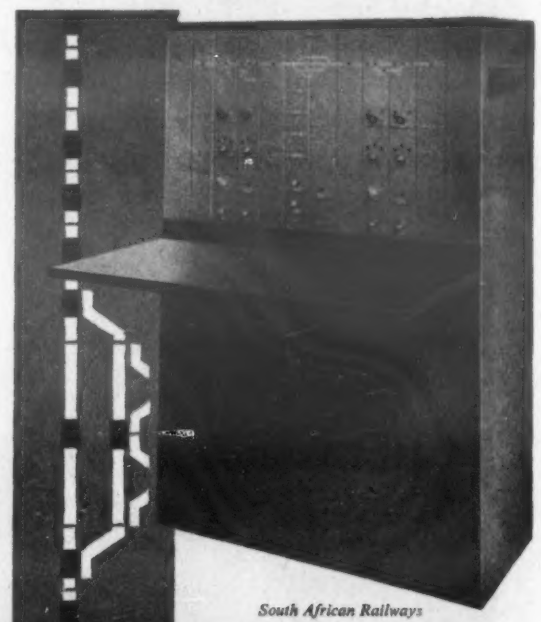
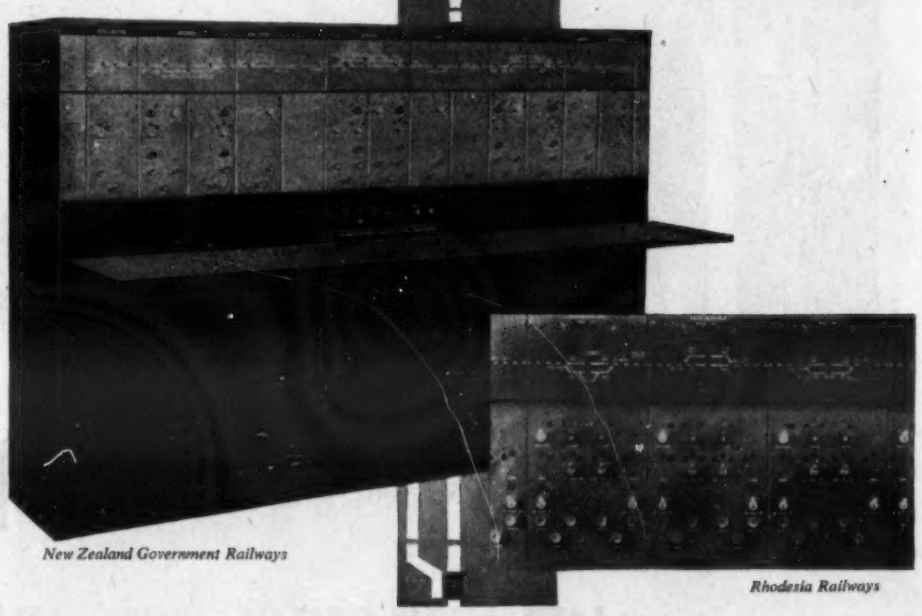


South African Railways



New Zealand Government Railways

Rhodesia Railways

The Siemens and General Electric Railway Signal Company Limited, East Lane, Wembley, Middlesex

LORRY—BUS—COACH

Cheap Fares at Gosport

DESPITE representations by Hants and Dorset Motor Services, Limited, the South Eastern area Traffic Commissioners last week granted an application by the Gosport and Fareham Omnibus Company to charge cheap fares between 9.30 a.m. and noon and between 1.30 p.m. and 3.30 p.m. Mondays to Fridays until March 28, on all services except 17 and 18, which work north and west of Fareham. These will take effect on January 20 and provide for a maximum fare of 3d. on all stages for which the normal fare is 4d. to 9d. It was stated in support of the application that the aim was to attract additional riders in the slack hours when traffic had been showing a tendency to decline.

Extension of Sick Pay Period

SUBJECT to approval by the City Council, Newcastle upon Tyne Transport Committee is to introduce a revised sick pay scheme for transport employees which may cost about £15,000 a year to operate. Under the new arrangement, the transport department will augment sickness benefits up to the normal wage, for a maximum of 13 weeks, according to length of service. At present, the limit is four weeks, irrespective of length of service.

A Lesson from the Bus Driver

FOR two years past a number of Midland Red drivers at the company's garage at Worcester has devoted a good deal of spare time to the training of 218 schoolchildren for their cycling proficiency certificates at schools in the city. A recent letter to the company from the Town Clerk of Worcester, Mr. Bertram C. Webster, paid tribute to the services of these men, and suggested that voluntary work of this kind could usefully be extended.

Spotlight on Fuel Tax

DURING the next few weeks, the three main passenger vehicle operators' associations—the M.P.T.A., the P.T.A. and the P.V.O.A.—are collaborating in an intensive publicity campaign to focus public attention on the injustice of the fuel tax. Window bills which are now being displayed in many vehicles and a leaflet is to have a wide distribution by these associations and the Scottish Road Passenger Transport Association. It points out that the artificial cost of the fuel tax (as opposed to other real costs such as wages), now represents as much as 14 per cent of operating costs.

Leeds—North Wales Express Service

RIVAL applications by Wallace Arnold Tours, Limited, and Rogers Motor Coaches, both of Leeds, were heard last week by the Yorkshire area Traffic Commissioners in respect of express carriage services on Saturdays during the summer between Leeds and coastal resorts of North Wales. Wallace Arnold applied for services to Llandudno and other resorts, one from its Leeds terminal, the other from Knottingley, while the Rogers application was identical with the first. Mr. G. P. Crowe, appearing for British Railways, objectors with B.E.T. and B.T.C.-associated bus companies, said that Rogers had based his case on the fact that in the 1930s he operated "some kind of service" to Wales. Undaunted by three decisions of the Minister he had apparently "brooded for some 27 years, waiting for a Prince Charming in the form of Wallace Arnold to release the spell."

Experimental Aberdare Livery

ALTHOUGH several of the South Wales municipal bus operators retain the traditional chocolate livery so long favoured by corporation tramway fleets throughout Britain, there are some bright and attractive exceptions. Caerphilly has a pleasing green livery with the colourful pictorial device of the urban district council on the side panels; Newport also adopted green just before the war. In Pontypridd a dark blue has long been de rigeur and a shade that is practically black is employed by Bedwas and Machen. The West Monmouthshire Board colour is akin to Midland Railway lake, while the neighbouring Gelligaer favours red with a green band. Latest convert to brighter colours is Aberdare U.D.C., where a deep primrose with red bands has appeared.

An Eastern Counties Bristol SC-type one-man bus at Bungay for Beccles. The operator is placing 36 of these Gardner 4LK-engined buses in service. Setright ticket machines are used

Glasgow Committee Plumps for Buses

REPLACEMENT of all remaining trams in Glasgow over a period of, possibly, 12 or 15 years, solely by buses, is the recommendation to be placed before the Glasgow Corporation Transport Committee and the Corporation itself by a special sub-committee. At the moment there is outstanding the conversion (early this year) of a further two tram routes to trolleybus operation. The undertaking has at present 125 trolleybuses in service, and 75 on order or available. (Other news on page 8.)

Hull Dispute Before N.J.I.C.

OPERATION of one-man buses at Hull was the subject of an emergency committee of the National Joint Industrial Council for the road passenger transport industry at Hull Guildhall on January 7. The meeting lasted for several hours but no statement was issued. A report will be made, it is understood, on January 22 to the Transport and General Workers' Union and to Hull Corporation. The extension of one-man bus services at Hull was to have started on November 10 last but bus crews voted against it by 476 to 64 and it was postponed, and the dispute referred to the N.J.I.C. A limited service of one-man buses has operated for two or three years.

Removal of Mud a Problem

MUD on roads is proving a great problem to Imperial Chemical Industries, Limited, at its works now being constructed at Wilton, near Middlesbrough, and the company has offered a substantial award to any employee who can solve it. The site covers 2,000 acres and 9 per cent of the road accidents in recent years there have resulted from vehicles skidding on ice or mud carried on to roads by vehicles moving to and from the different building sites. In a recent six-month period about 34,000 lorry loads of excavated material were removed from the sites to tipping areas. About £500 a month is spent on clearing mud from roads near building work. It has been found that the brushes of mechanical sweepers tend to clog and are not very effective on hard surfaces. Hand and tractor-driven squeegees are useful when the mud is wet but not when it is stiff.

Mobile Shop Summons Fails

MAGISTRATES at Woodbridge, Suffolk, have ruled that a mobile shop is not a shop within the provisions of the Shops Act, 1950. They dismissed a summons brought by East Suffolk County Council against a man who admitted selling a packet of tea from a shop on wheels on a Sunday, contrary to the Act. Defending solicitor contended that a shop on wheels was not "premises" and that the Act did not, therefore, apply.

Minister Promises Support to R.H.A.

IN a message to members of the Road Haulage Association published this week in the *Road Way*, the Minister of Transport says that it has been the objective of the Government to try to take the vexed question of road transport out of the political arena. "I am afraid we must face the fact that this does not appear to be the policy of the Opposition," says Mr. Watkinson. The Government firmly believes that the present solution is the right one for the whole of the road haulage industry. "We believe that the mixed economy of state and private enterprise, with free competition between them, is the right one in the public interest. We shall therefore unhesitatingly oppose plans which would seek to throw this industry back into violent partisan political controversy," his message adds.

Who Caused Hold-Up on A74?

LORRY drivers who ignored warnings about conditions were responsible for the big hold-up on the Glasgow—Carlisle A74 road at Beattock last month, it was claimed at the last meeting of Dumfries County Council. The road blockage, on December 10 and the following day, started with a heavy vehicle skidding into a ditch. Mr. L. T. Carnegie, clerk to the county council, stated that when an A.A. man chalked up a warning of the hold-up in Gretna, lorry drivers "waved and drove on."

Bus Wage Dispute for Conciliation

AFTER a meeting on Tuesday of the negotiating committee of the T. and G.W.U. which is concerned with the present wage claim for bus workers employed by London Transport it was announced that delegates of the busmen were to be urged on Friday to accept an arrangement under which negotiations could continue with the assistance of a conciliation committee which would be appointed by the Minister of Labour. It will be recalled that London Transport has already twice rejected the claim; the busmen's delegates have rejected arbitration to settle the dispute.

B.R.S. Birmingham Depot

IMPROVEMENTS are to be made by British Road Services to its general haulage depot at Bromford, Birmingham. Already the principal B.R.S. depot in Birmingham, it is sited in the heart of an area that is being industrially developed, and its enlargement and improvement are planned to make it the only solely general haulage B.R.S. depot in the city. With a fleet of approaching 100 vehicles, together with many trailers, it deals at present with a very great variety of traffics, including cased cars, motor vehicles and spares, from factory to storage prior to sorting and dispatch for export shipment. The development, to cost £100,000, will include re-siting the depot entrance; construction of a new fuelling island to provide press-button refuelling for a large number of vehicles; additional surfaced areas for car and vehicle parking; greatly improved staff amenities.

Bus and Coach Developments

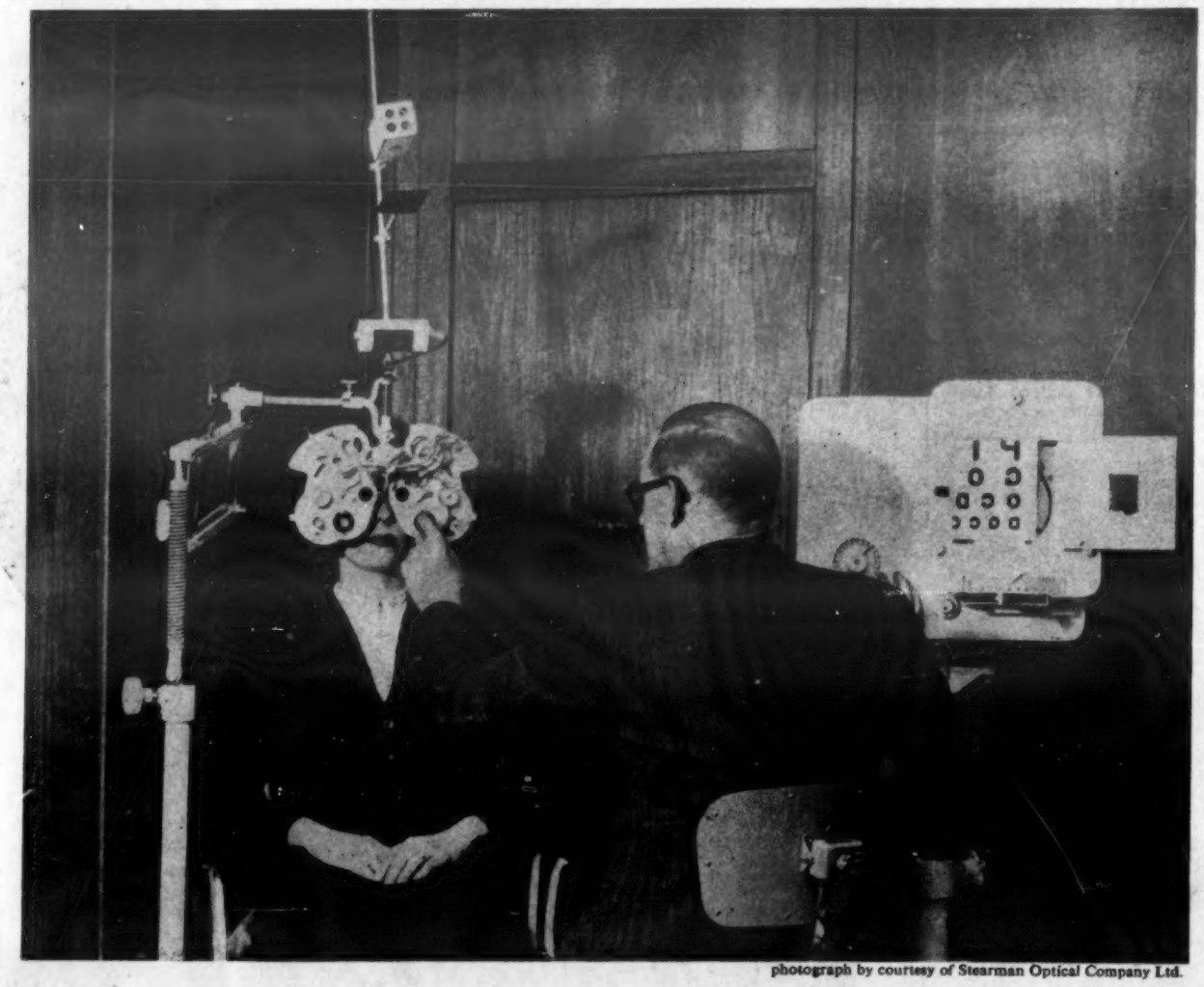
A. Timpson and Sons, Limited, seeks modifications of express and excursions and tours licences which, if granted, would be followed by the surrender of the licences of Wallis Hire Service, Limited.

Western National Omnibus Co., Limited, applies to extend the Bridgwater—Chedzoy short workings on its Glastonbury service to Moorlinch following the relinquishment by J. W. Dibble of his licence on February 1.

J. W. Mosley and Son, Barugh Green, seek the licences of E. W. Tipler, Hoyland.

Excursions and tours from Halifax of O. and C. Holdsworth, Limited, are sought by Walton and Helliwell, Limited.

Commencing January 8, London Transport Central bus route 252, Romford Station—Romford (Birch Road), was extended daily to Collier Row (White Hart Lane) and double-deckers are used. Night route 290, Edmonton—Pimlico, was diverted via Eversholt Street and Euston Road. From January 12, the Sunday working on 39 between Southfields and Victoria was renumbered 39A and afternoon journeys were extended to Waterloo via Horseferry Road and Lambeth Bridge, serving Westminster and Saint Thomas's hospitals. All minimum fares on Central buses leaving Kingston are to be removed.



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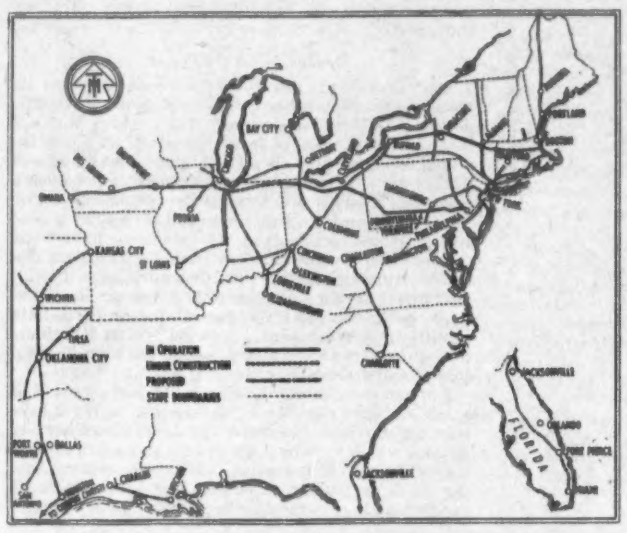
ACROSS AMERICA BY GREYHOUND

Some Incidents of a Coast-to-Coast Journey

By a Special Correspondent

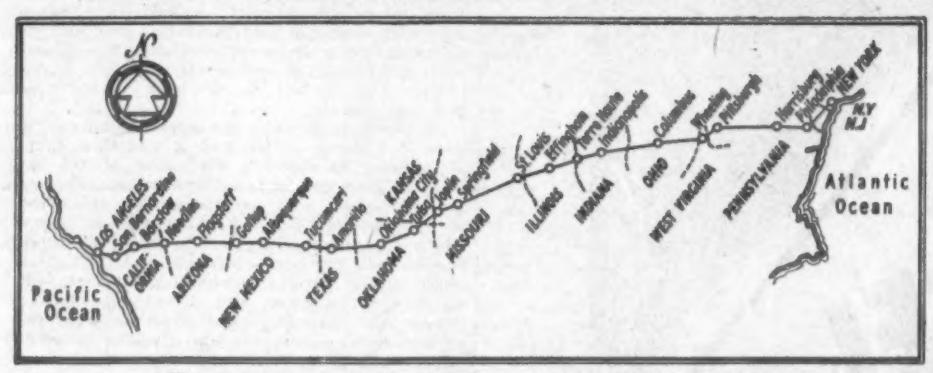
Turnpike tolls, finally abolished in England as long ago as 1895, are today paying in part for the world's finest system of express highways in the United States. Our correspondent, who recently travelled the breadth of the States, from New York to Southern California, by Greyhound coach, mainly over that section of the vast modern road network known as U.S. Highway 66, has sent this account of his journey.

IT is possible to make the 3,000-odd mile journey by road from the Atlantic to the Pacific over the Greyhound group's network, with only one change of bus (as the Americans call the express coach!), at St. Louis. The eastern leg of the trip is carried out under the banner of Eastern Greyhound Lines and the remainder is the responsibility of South Western Greyhound Lines, although westward from Albuquerque, in New Mexico, the route lies within the sphere of operations of the newly-formed Western division of the Greyhound system. At St. Louis the connection is so timed that the through-passenger can be on his way within 45 min. of arrival.



Toll roads in the Eastern United States, constructed and proposed. Some, such as that from Charleston to Charlotte, have been constructed in one state (West Virginia in this case) and are left high and dry in another

To travel thus, however, entails sleeping on the bus for three consecutive nights; even with Greyhound's luxurious reclining seats, this is not an experience to be undertaken except in cases of dire necessity. The writer's original intention had been to break the journey into four fairly equal divisions, by stopping overnight at Indianapolis, St. Louis and Albuquerque. On arrival in New York it was found that the current schedules did not take too kindly to this arrangement and it was more convenient to spend one night at Pittsburgh, the next on the bus, the following night at Oklahoma City and the final night on the road again. In this way the trip was by no means as fatiguing as it would have been had the throughout journey been made without stop-overs.



The author's route by Greyhound service from Atlantic to Pacific

Surprises

Travel in the United States is always full of surprises—at least to me. The first came at the bus terminal in New York, where it was discovered that all Greyhound timetables east of Nevada and California use Standard Time, with the result that the bus due to leave New York at 11.35 a.m. left an hour later to take account of the daylight saving which was still in force at the time. From then until my arrival in California I was never certain about the time; the scheduled time of arrival at a town, the clocks to be seen in the streets, the timepiece in the bus and my own watch all gave different readings, often varying by as much as two hours. No doubt the seasoned American traveller is hardened to this, but it can be trying for the foreigner.

No one was allowed to board the bus until a few minutes before departure, which appears an unnecessary restriction when a journey of several thousand miles is involved. Nevertheless, the boarding and stowage of luggage in the large baggage compartments were carried out quietly and expeditiously, and the vehicle left on time. The handling of passengers' baggage anywhere in the United States, whether one travels by road, rail or air, is invariably an efficient operation. In the Greyhound case, it is checked into the baggage room at the departure bus station and checked out from the baggage room on arrival; the passenger takes no interest in it between these points. A foolproof system of locating any piece that goes astray, and an adequate insurance scheme, remove all need to worry on account of baggage. Hand baggage is carried on capacious luggage racks above each seat.

Scenicruiser Travel

The vehicles in which I travelled were the famous Scenicruisers, first introduced in 1954 (and described in MODERN TRANSPORT of September 29 and October 6, 1956), with 43 seats, a raised observation level, washroom and toilet facilities, tinted sun-resistant windows and air-conditioning. The type is an efficient piece of General Motors mechanism, incorporating air suspension and power steering; it has, since teething troubles were overcome, a performance record second to none, as indeed it needs to have in view of the ever-changing conditions in which it is called upon to function. A senior Greyhound engineer told me that it is not impossible for a vehicle travelling over mountainous and desert routes at certain times of the year to encounter temperature changes ranging from 120 deg. to 40 deg. below!

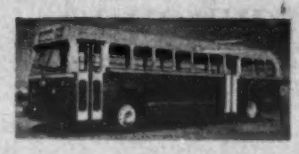
A brief call at the other Greyhound bus station in New York, at 34th Street, was followed by a quick run through the Lincoln Tunnel and the bus was out on the first of the turnpikes, the New Jersey Turnpike, en route to Philadelphia and Harrisburg, Pennsylvania. Harrisburg, 176 miles from New York, was left on time at 4.50 p.m. and at once the bus took to the Pennsylvania Turnpike. This pioneer of America's modern toll roads spans one-eighth of the nation, stretching from the Delaware River to the Ohio line. Its 360 miles without a stop sign, traffic light, cross street or grade steeper than 1 in 33, substantiate its claim to be the world's greatest highway, while its route, through the Allegheny Mountains in seven well-ventilated tunnels, lends support to the theory that it is also the "greatest of all man-made wonders," as its sponsors claim. Its route employs earthworks of a partially built railway, abandoned in 1885; after half a century of neglect cuttings and tunnels required much excavation. Since it opened in 1940, it has carried well over 150 million people.

High Speed in Tunnels

A notable feature of this section of the journey was the negotiation of the seven tunnels, named from east to west Blue Mountain, Kittatinny, Tuscarora, Sideling Hill, Rays Hill, Allegheny Mountain and Laurel Hill. [These relics of the South Pennsylvania Railroad scheme, with the first 160 miles of the Turnpike, were described in our issues of October 26, November 9 and 16, 1940.] Each, straight and about a mile long, contains only a single traffic lane in each direction, with no dividing strip. With all vehicles maintaining an average speed of between 50 and 60 m.p.h., this meant that the bus was passing a succession of giant trucks with only a foot or two clearance at a combined speed of something over 100 m.p.h. A car smash east of the Laurel Hill portal created a traffic jam nearly three miles long, which demonstrates that even "the greatest highway in the world" has its difficulties. However, these particular problems were quickly solved by the State Highway Patrol, who displayed considerable ingenuity in getting traffic moving again. The result was that the bus

(*Continued on page 6*)

The "Los Angeles Express" arrives in the city of its name



Olympic ER44 in service with Johannesburg Municipality

Olympic ER44 used by Bloemfontein Municipality

250,000 miles on African Roads

. . . and now well into the second quarter million! That is the record of this Leyland-MCW Olympic ER44, a 70-seater for the transport of non-European passengers at Port Elizabeth, owned by Forlee's Bus Service.

Olympic ER 44 53-seater for Durban Corporation

From Cape Town to Broken Hill, municipalities and transport operators agree that the Leyland-MCW Olympics are ideal for their purposes, and can face up to anything that service in Africa demands. The amazingly strong and safe chassisless construction withstands heavy loads over bad surfaces. High performance with economy are ensured by the Leyland 150 b.h.p. oil engine. Ease of handling is provided by the Pneumo-Cyclic gearbox and two-pedal control on the Mark II Olympics. Reports from users everywhere testify to the ease and economy of maintenance.

Olympic HR44 dual class bus for Rhodesia United Transport

Olympic HR44 of Salisbury (S. Rhodesia) United Transport

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Across America by Greyhound

(*Continued from page 5*)

arrived in Pittsburgh only a few minutes late, having taken exactly nine hours running time on the 381-mile journey from New York, or a bare half-hour more than an express train.

Before arrival in Pittsburgh, however, an evening comfort stop at Midway in the Alleghenies had introduced me to Greyhound's excellent nation-wide network of post houses (" continuing the early American tradition of highway hospitality across the nations," as the advertisements point out), wherein light refreshments, rest rooms and postal and telegraph facilities of a high standard are available at any time of the day or night. As, too, unfortunately, is the ubiquitous " juke box," without which it appears no American public room is completely furnished. Although these post houses are operated by concessionnaires, the Greyhound Corporation lays down the standards to be maintained. An interesting feature is the lack of a standard menu, so that the intrepid traveller may sample dishes peculiar to the State in which he finds himself.

A Flaw

The first minor flaw in the otherwise excellent bus station arrangements manifested itself at Pittsburgh the next morning. Two buses, one the customary deck-and-a-half Scenicruiser and the other a single-deck Highway Traveller, both bearing the legend " St. Louis Express," stood in the loading bay while local officials appeared unable to decide which should proceed. In the meantime, six or seven passengers (including myself) waited without information for 40 minutes in a shade temperature of 91 deg.—an example of the sad lack of public relations which appears to exist in some American road transport circles. The result of this indecision was that the bus, due to leave at 7.20 a.m., left at 8 o'clock. It is illustrative of the precise scheduling of services that its driver was unable to make up the lost 40 minutes on the six-hour run over turnpike roads to Columbus, capital of the state of Ohio.

The woodlands of Pennsylvania gradually gave way to the undulating countryside of West Virginia, Ohio and Indiana, with only brief stops at the small townships of Wheeling and Richmond to relieve the endless vista of motels (of all types of architecture from early Jacobean to late Sputnik), gas stations, used car lots and hoardings. A meal stop at Indianapolis was followed by a brief halt at Terre Haute, after which the bus ran non-stop to Effingham, in Illinois, in the midst of the rolling plains and prairies which are a feature of the central states.

Night on the Bus

That night was the first spent on the bus; travel was comfortable and reasonably quiet, except for the necessity to change buses at 1 a.m. at St. Louis, the dividing line between Eastern and South Western Greyhound Lines. The various comfort stops during the night were also trying to would-be sleepers, for each was heralded by the switching on of all interior lights and a loudspeaker announcement of the name of the place and duration of stay. By breakfast time the following morning, the bus had crossed the state of Missouri and was skirting a corner of Kansas prior to entering Oklahoma. The small township of Lebanon, where a short halt was made at daybreak, is said to be the exact geographical centre of the United States.

Night travel on American roads is a colourful experience. Freight, of course, moves by night as by day, and the main trunk roads are well filled by giant trucks, often with trailers as large as themselves. To accord with the various highway laws, all carry a multiplicity of lamps, located not only at front and rear but also along each side; it is possible for one large truck to be adorned by anything up to 30 separate lamps, a figure which can be almost doubled when a trailer is involved. Headlamps are left permanently on, as it is illegal in most states to drive on side or parking lamps, even in large cities where the streets are as bright as in the daytime. Headlights also have a daytime use, for there is evidently a universal code of flashing signals to warn oncoming vehicles, including buses, of police speed traps ahead. Long-distance buses appear to be the only commercial vehicles not liable to be stopped on the spot for traffic code violations —in their case " tickets " are forwarded.

Bank Robbery by Bus

At the next main stop, Tulsa in Oklahoma, I observed an unusual example of the high reputation enjoyed by Greyhound for punctuality. The bus was timed to leave at 2 p.m., and a local bank robber apparently felt that he could count on this time being strictly adhered to. He therefore planned his coup with split-second precision and boarded the Los Angeles Express two or three seconds before it was due to leave. Unfortunately for him, a private car owner stalled his engine in the approach to the bus station, and the few minutes' delay thus caused enabled state troopers to board the bus and remove the offender!

An evening in Oklahoma City, centre of the Indian country, provided a welcome break, for my first night (at Pittsburgh) had been a matter of checking into a nearby hotel immediately on arrival and checking out early the next day. At Oklahoma City, however, the bus arrived at 4.15 p.m. and the next through express was not due to leave until 8.50 a.m. the next day. A point that was brought home to me during the journey was the advisability of planning one's stopovers in the United States with the help of a travel agent who knows the country intimately. The Greyhound timetable, when studied in England before departure, indicated several convenient evening stops; unfortunately, most of them were at places unknown to me with the result that I selected the larger cities in which to pass the night, for fear of being stranded in " backwoods " townships with no available accommodation. As it happened, my fears were groundless, for all Greyhound's scheduled stops are at places of size and substance. However, a little pre-knowledge would have enabled me to spend an evening or two in delightful small communities and savour the real America—which is not always easily to be found in the larger cities.

Many Through Passengers

The 8.50 a.m. bus left Oklahoma City 10 minutes late. It was full, and it was interesting to note that all but three of its passengers were booked through to Los Angeles. Two further stops were made in Oklahoma State, at El Reno and Clinton. The vehicle was now negotiating the south-western desert country which extends through the states of Oklahoma, Texas, New Mexico and Arizona. Flat rolling plains stretched as far as the eye could see, and the bus maintained very high speeds (the driver kept the exact figure a secret from me, for undoubtedly good reasons of his own) for many hours, with only short stops at infrequent intervals.

These long, flat stretches of U.S. Highway 66 had no obvious effect on the drivers of the various buses; to the passengers, however, they acted as a soporific. In the midst of so much flat and relatively uninspiring countryside, it came as a surprise to find, on making the first halt in Texas at the small township of Shamrock, that it boasts hundreds of motel accommodations, several of the finest restaurants in the south-west, and attracts many thousands of tourists annually, though what they find to do there is a mystery.

Interchange at Amarillo

Still more surprising, perhaps, was the next stop-over point, Amarillo, for this town " deep in the heart of Texas " possesses a modern bus station which would not look out of place in any of the more advanced capital cities of the world. Here interchange facilities are available with the New Mexico Transportation Company, and with bus lines to the north-west. In Texas, one could not fail to note the incongruity of cow-punchers wearing 10-gallon hats parking their 1957 Cadillacs and Oldsmobiles at automatic parking meters. Perhaps wisely, no gesture is made by the authorities to mould these meters to the surroundings. In the case of Greyhound's bus station, however, the metal buffers at the ends of the loading bays bore a marked resemblance to the traditional hitching-posts of the old south-west. . . . The lunch stop at Amarillo was memorable both for the fact that it had just rained for the first time in seven years, and that as much rain had fallen in that one rain-storm as had fallen during the past 20 years!

Early the same evening, the bus crossed the border into New Mexico, the state ceded to the United States by Mexico in 1848. Mexican influence is still apparent everywhere, and perhaps nowhere more than in local names; three places at which halts were made were named, respectively, Tucumcari, Santa Rosa, and Albuquerque. Albuquerque, 5,000 ft. above sea level and one of the largest cities in the state, possesses a fine bus station with many interchange facilities. It also possesses a large half-breed population, most of whom appeared to be in the vicinity of the bus station when the bus left just after midnight. A further stop, at Gallup at 3 a.m., was the last made in the state of New Mexico, and for several hours the bus pursued its steady and relatively silent course across a fantastic landscape dominated by hundreds of flat-topped rocks ranging in height from a few feet to thousands.

Breakfast at Flagstaff

Daybreak found the bus in Arizona, the last of the 48 states to join the Union—this was as recently as 1912, a surprisingly late date. At 7 a.m. a breakfast stop was made at Flagstaff, at 6,900 ft. above sea level probably the highest point reached during the whole journey, and a convenient transfer point for a quick side trip to the scenic beauty of the Grand Canyon. For the next four hours, across the plateaus and rugged mountainous terrain of Arizona during the hottest part of the day, the temperature inside the bus gradually rose, to the discomfort of the passengers and the obvious dismay of the driver at the partial failure of the air conditioning equipment. Fortunately, at Kingman the equipment was adjusted—none too soon, for the shade temperature was 102 deg.

For some 30 miles Highway 66 now runs due south to skirt the Black Mountains, before again turning westward to cross the Colorado River at Topock, a few miles north of the Chemehuevi Valley Indian Reservation. Here the river forms the state boundary line between Arizona and California; it was the last leg of the long journey.

Breakdown in the Mojave

Needles, a small community on the west bank of the river, was the scene of the lunch stop; here watches were finally adjusted to Pacific Standard Time. Needles just comes in California, and it was the last scheduled stop before negotiating the South Pass between the Sacramento and Dead Mountains, and the 200-mile crossing of the Mojave Desert. Up to now each of the buses had shown no sign of strain, except for the minor matter of the air conditioner already mentioned. It came, therefore, as a shock when—with scarcely one-tenth of the 200 miles of desert crossed—the engine faltered once or twice and finally stopped, leaving the bus standing on an open desert road, with no shade visible for miles, in the midday heat. At first, there was no noticeable change in the temperature, but when the air conditioning equipment shut off a few minutes later, the temperature inside the bus rose rapidly to that outside, which 20 miles back at Needles had been over 105 deg.

The inside surfaces of the windows and roof became too hot to touch and it was then that I appreciated to the full the value of the sun-resistant glass used in these Scenicruisers; although the atmosphere soon became almost unbearable, not one passenger complained about the sun's rays, which were coming directly into the bus from both the side and the large roof lights. All the efforts of the driver, working outside in great heat, failed to re-start the engine and it was not until two express Greyhounds, bound for San Francisco, arrived some 45 minutes later that the combined efforts of the three drivers were successful.

Recovering Lost Time

The next 60 miles of desert were covered in 52 minutes, an average of over 69 m.p.h.! Barstow, where the Los Angeles and San Francisco lines diverge, was left behind at 5.12 p.m., exactly an hour behind schedule, with only 198 minutes left in which to cover the remaining 132 miles, requiring an average of 40 m.p.h. This was no easy task, for the final section includes the long run down the Cajon Pass in the San Bernadino Mountains, and some 50 miles through the widespread built-up communities and suburbs which surround the city of Los Angeles. Thanks largely to the magnificent Highway 66, the Scenicruiser arrived at the Greyhound terminal on time, at 8.30 p.m., the 3,000-mile journey across 14 states from New York having been carried out in a running time of 72 hours.

My fare, paid in London in sterling, was a little over £21; expenses en route, including two nights in hotels, amounted to some $50. These figures show that any Briton hardy enough to face the double journey could go by Greyhound right across America and back by an alternative route, seeing as much off-the-beaten-track scenery as possible, and still keep within his £100 allowance. If he found the trip tiring, it would not be Greyhound's fault.

Assessment

To sum up: what was good and what was bad about the journey? First, there was nothing really bad. The breakdown of the bus in the desert was, I am told, the first time such a thing had happened. I was surprised that Greyhound operates no system of reserved seats. On a lighter note, I was intrigued by the true-to-life scale models of Scenicruisers and Highway Travellers on sale at every Greyhound office, bus station and post house, but astonished to find them all marked " Made in Japan." I have nothing but praise for the high standard of driving, road courtesy, punctuality and, of course, general comfort. Even when travelling at high speeds in great heat, I never felt any apprehension. As already stated, baggage handling was first-class, the arrangements at rest halts, post houses and bus stations more than adequate.

That Greyhound is considered a reliable means of transport is amply shown by the fact that on the bus from Oklahoma City to Los Angeles there were two little girls, aged 10 and 7, who were travelling unaccompanied for the third year in succession between those two cities, which lie half a continent apart.

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RAILWAY FREIGHT TRAFFIC OPERATION

In the Light of Modernisation

*By C. P. HOPKINS, M.Inst.T., General Manager, Southern Region, British Railways**

CONDITIONS, economically and in terms of national transport, have changed very much in the postwar years: and the changes have to a considerable degree been due to causes outside the control of the railways themselves, but the results of a review do seem to indicate that there is somewhere quite a sizeable margin of spare railway capacity for dealing with more freight traffic and this paper poses the question of what contribution can be made in the operating field to the attraction of more freight business. The modernisation plan for British Railways is the first answer. This reference to the plan is to make the first point that from improved line capacity directly due to modernised track and signalling, from improved traction, from research expenditure and from staff welfare and office mechanisation freight traffic operation will share great benefits with passenger traffic operation. Freight traffic specifically will benefit from the planned improvement of freight wagons and freight terminals: and from the modernisation of marshalling yards.

Overall Objectives

By the end of the term of the modernisation plan there can be no doubt that the freight services on offer will be entirely sound, but the objectives are necessarily of an overall nature. This idea is particularly true of the aims that deal with the wagon stock of the undertaking. It is unthinkable that, with completely minor exceptions, the wagon stock of British Railways could be used otherwise than in common. Even in such a matter as the fitting of automatic brakes to a wagon fleet it is not possible to segregate completely and geographically the wagons already brake-fitted from those awaiting fitting. To a great extent the modernised wagon fleet falls to be considered as an entity.

Then as regards marshalling yards: freight business being general throughout the country, the full advantages of this part of the plan are likely to be global rather than local. Marshalling yard development and mechanisation—like the improvement of track and traction equipment—will be pursued simultaneously in all regions, but the full measure of improvement of the freight service from this cause will not come about until the full pattern of marshalling yard modernisation is achieved.

Immediate Steps

Since the overall freight plan must take time to develop, the immediate problem as regards freight must be to prepare for the realisation of the physical side of the plan by taking steps now that will also look after its aims in the economic field. There have been occasions in the past when inspired improvisation has led to achievements that might otherwise never have been realised. Our presentday freight business surely falls to be dealt with in a somewhat similar manner.

In any commercial freight transaction the two elements of cost and service merge at a very early stage into one: indeed the opinion is frequently being expressed today that in these matters cost is of secondary importance to convenience—which is the same thing as service. To be able to give a definite delivery date and time is a most important sales point for any manufacturer; and his choice of mode of transport is more often than not governed accordingly.

Need for Reliability of Service

In the approach to railway freight traffic operation in the light of modernisation, the first attack must be upon service, because while reduced cost will attract marginal traffic to rail or will defer the moment of its loss, there can be no hope of its retention without reliability of service. Reliability should be the first aim, and it is firmly suggested that the first essential towards its achievement is a sound freight train timetable for all freight trains, including perfect connections in marshalling yards.

It is submitted that there has for too long been too much readiness to accept the idea that the accurate and inviolable scheduling of freight train traffic should be the exception and not the rule. In the past the traditional basis of freight traffic operation has considered freight traffic as the great adjuster, the traffic that could be relied on to use up the surplus line capacity once the passenger train needs were provided for. In an age when the freight traffic would pass by rail anyway, this pattern of thought was acceptable to the trade of the nation, and it certainly made for an economical manner of handling the traffic—at least from the railway point of view. It cannot apply now.

New Approach Needed

Nowadays consignees no longer wish to provide for themselves—either in terms of arrival sidings or in terms of the capital value of their product in any pipeline—a cushion against irregularities in the flow of their rail freight traffic. Why should they? Other means of transport do not require the existence of such a cushion. Hence the need today for a completely new approach to the problem of railway freight operating: the need to apply everywhere and to the generality of freight traffic the same kind of detailed freight train supervision as has applied for so long and so successfully to specific flows of traffic in specific areas of the country.

Unfortunately, freight train operating statistics reflect only a part of the story. For indications of those transits one is thrown back inevitably to periodical special checks from wagon labels and special records. Tests of this kind have been a feature of freight operations in recent years; their results are interesting and not unsatisfactory. For example, one region regularly proves that of its local freight traffic in wagon loads, the percentage of wagons reaching their destinations the day after their local start (from the exchange junction or from the regional loading point) is as high as 83 per cent.

While such test figures, quite fairly obtained, are better than nothing, they check only what has been done: they can only be the roughest guides to what ought to be done. Again, as indicating what has already been achieved, there is a satisfactory record of success with export traffic, with assured train services laid down for traffic specially consigned and watched. In 12 months over 10,000 wagon loads from 81 industrial centres were covered in this way to the London docks, and there was not a single case where a consignment missed its ship through a failure of the service.

These are merely examples of what has been achieved so far: they are quoted because their success surely permits the confident suggestion that there is no reasonable alternative to the formulation of ideal freight train timetables and, through adequate supervision, their translation into actuality. Quite recently reference was made in some detail in the technical Press (MODERN TRANSPORT, September 14, 1957) to that part of the Scottish Region's freight train network that is based on the fitted or partially fitted train: the example is important as indicating the kind of timetable planning that it is the purpose of this paper to urge for all our freight business.

It cannot be too often repeated that for our immediate purpose we are talking about regularity and reliability: not necessarily speed. Regularity and reliability should be achievable even with primitive facilities—and the freight facilities of British Railways are far from being primitive—if only the use of those facilities is fully planned and fully supervised, in the light of the equipment that exists. Improved equipment is, of course, necessary for later perfection: but there must be a foundation first.

Planning the Freight Train Timetable

It seems to me that the main difficulty in the way of the operation of freight train connections, as closely made as those of passenger trains, may well derive in the first place not from the absence of equipment, facilities or working staff, but may well arise in connection with the traffic analyses that must desirably precede the formulation of the timetable and its pattern of connections. For complete success such analysis must be complete and searching.

The planning will obviously involve more cost in timetable staff. There must clearly be an adequacy of "when required" timings to cope with the inevitable irregularities of traffic flow. Equally the cost of supervising the actual operation of trains must be expected to increase. Intensification of supervision must begin at marshalling yards and other points where train connections are to be made and it must be continued in control offices: because with the inter-connection of freight train services everywhere, the service cannot be expected to run itself without supervision—any more than a passenger service does. The question of trained staff will not be easily solved but the maintenance of connections must be ensured.

Extra Costs Outweighed

These items of immediate supervisory cost have got to be faced: they represent in brief the price of re-establishing a freight reputation. They would be justified on that ground alone—even if there were no countervailing advantages besides an improved name for reliability of service. But, in fact, anything that the increased efficiency in freight train services involves by way of such costs will be far outweighed, and quickly, in the better use of men and equipment. A planned timetable automatically reduces the demand, in terms of time, on locomotives and wagons in transit.

It will undoubtedly be suggested that the detailed planning that this paper looks for must await the provision of the improved pattern of marshalling yards, for the country as a whole. Of course the new marshalling yard pattern will improve the operation of freight trains: otherwise, it would not be so important a part of the plan. But the interim planning of timetables and connections can be carried out to fit in with any pattern of marshalling yard equipment.

Finally, it may be urged that the idea of planned timetables must await the fitting of the vacuum brake to the whole of the freight wagon fleet. Once again, a timetable is more flexible than a wagon fleet: the timetables can be adjusted progressively to accommodate the additional fitted trains that will result from the progressive fitting of more and more wagons.

Private Sidings

We want then a better, more systematic freight train service: what of the part that will be played in improved transits by the freight terminal? The best of terminals cannot hope to erase deficiencies in train transits. Fortunately this position is simplified to some extent, in the interim problem with which we are dealing, as regards a large proportion of our freight traffic: that proportion that is dealt with in private sidings.

As the modernisation plan develops there may well be radical changes in the method of dealing with private siding traffic, but these are for the long term. Meanwhile, private siding traffic stands to benefit immediately from any better freight service that avoids irregular arrivals and meets the customers' cost problem in the matter of stocks in transit and economy in his own operations. Moreover, less congestion in and around the sidings, with less delay through accumulation of loaded traffic, means for the railway a reduction in the terminal times of the wagons employed, a reduction translatable into a reduction in their number.

The point to be made is that in the interval until the new accommodation is available, until the concentrations of traffic can then be carried out, all is not lost. Immediate steps should be to intensify terminal supervision with a view to the early introduction of altered methods where appropriate. These should be capable of operation within the limitations of present terminal structures. The immediate aim should be not so much economy—that will come later—as ensuring a regular, free and punctual acceptance and disposal of all traffic offering.

Simultaneously, such interim contributions as can quickly and simply be made to the problem of the road-rail transfer at existing terminals should be introduced freely and without awaiting the ideal solution that will be a part of the complete plan. The question of improvised railheads for full load traffic, as well as for less than wagon load traffic, ought to be advanced without waiting for either the solution of the domestic coal problem, or the construction of the modernised freight terminal or freight transfer depot of the future.

* Abstract of a paper presented to the Institute of Transport in London on January 13

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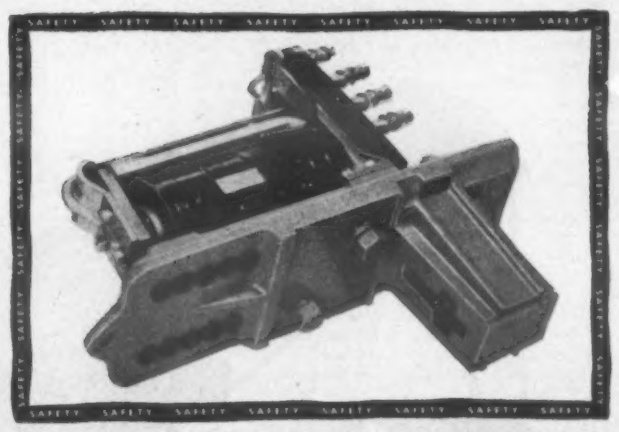

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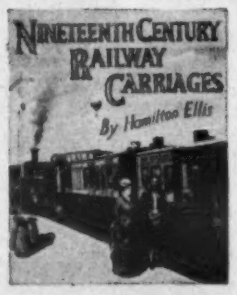

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NEWS FROM ALL QUARTERS

Last Steam Locomotive Withdrawn

Netherlands Railways withdrew its last steam locomotive from active service on January 7. Steam haulage for passenger service had been withdrawn some time ago; now diesel or electric traction is used for all trains.

Record Showings of Petroleum Films

The Petroleum Films Bureau reports that it has once more exceeded the number of ascertained non-theatrical showings of its films in the previous year. These free-loan showings in 1957 amounted to 86,096 against 77,918 in 1956—an increase of 8,178.

Easingwold Railway Winding-Up

The Easingwold Railway Company, originally constituted by the Easingwold Railway Act, 1887, has been registered as a limited company with a capital of £13,500 in order to facilitate winding up. The railway closed last month.

Manx Electric Railway Repairs

Work has been proceeding during the last few weeks in laying new track on the Manx Electric Railway between Onchan Head and Garwick and later the whole of the line from Laxey to the top of Snaefell mountain will be relaid. Some cars have already been painted in the new colours of the railway—green and white.

Ganges River Service

Owing to persistent losses, the India General Navigation and Railway Co., Limited, has suspended its Ganges river cargo service in India. An Indian Government tribunal had ordered the company to continue the service until substitute arrangements had been made but it has confirmed its decision to exercise the right to discontinue business.

Govan Road Tram Routes

Glasgow Corporation Transport Department hopes to replace two further tram routes by buses in the latter part of this year. They are routes 4, Hillington Road—Springburn, and 27, Shieldhall—Springburn, both serving Govan Road and crossing the King George V Bridge over the Clyde. The two new routes will supplement earlier abandonments and so bring to fruition the proposals made some five years ago for scrapping the 450 oldest trams.

Fire Prevention in Garages

Proposals for fire prevention in garage and allied premises where petrol is stored have been advanced by the Weights and Measures Inspector for Dumfriesshire. It is proposed that these should apply to all new applications for permission to store petrol. It is recommended that all new garage and repair premises designed to accommodate more than 15 private cars or eight lorries should have concrete floors or floors made from other fire-resisting material. It is also proposed that the present conditions applying to installation of electric wiring to the use of naked flame and the security of heating arrangements which apply in the case of petrol installation should now also apply to garages.

Darlington—Penrith Diesels

Diesel trains replaced steam trains on North Eastern Region services between Darlington and Penrith as from January 6.

Diesel Maintenance Depot at Sheffield

With 60 diesel units eventually on passenger services around Sheffield the Eastern Region has to provide a building for the maintenance and servicing of the diesel sets. The small electric locomotive depot at Darnall is to be adapted and enlarged for this purpose.

Cheaper Rail Fare Summonses

At Bow Street magistrates court in London last week, several defendants summoned for travelling by rail without payment of fare and intent to avoid payment of fare, pleaded guilty on a form 903, thus obviating the need for witnesses and railway counsel. The new procedure arises out of the Magistrates Act, 1957; 5s. costs were nevertheless added to each of the penalties imposed.

Labour on German Minor Railways

The German Railwaymen's Union plans to continue its campaign for parity in the wages, pensions and conditions of workers on minor railways with those obtaining on the German Federal Railway. These privately owned railways are governed by federal regulations in matters such as tariffs, carrier liability and war debts, but the Länder governments are responsible in the case of financial difficulties and this, the union feels, should not be allowed to work to the disadvantage of the employee.

Dundalk Engineering Works

Dundalk Engineering Works, Limited, the new company formed to take over the former Great Northern Railway works, commenced operations on January 11. The chairman, Mr. A. P. Reynolds, said a turnover of at least £2,000,000 would be necessary to maintain employment at its present level. The new board is examining plans to re-equip the works for various types of engineering work. G.N.R. work will be continued as long as the rail undertaking remains in being and G.N.R. stock will be maintained after it passes to C.I.E. in September.

"Load-It-Yourself" Service to Bristol

A new express freight service facility in each direction between London and Bristol was introduced on January 6 by the Western Region. For £5 traders will be able to hire for their exclusive use a 12-ton covered van or an open wagon on a new London—Bristol overnight freight service which will run nightly in each direction from Mondays to Fridays inclusive. The trader will be required to provide cartage to and from the railway station and perform loading and unloading of the railway vehicle. Loading at Paddington (St. Ervan's Road) can be performed up to 8 p.m. Vans and wagons will be available for discharge at Bristol (Pylle Hill) at 6.30 a.m. next morning. In the reverse direction, loading at Bristol can be undertaken up to 7 p.m. and unloading commenced at Paddington at 6 a.m. next morning.

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AP32

COMMERCIAL AVIATION

Earlier Summer Timetable

FIRST C.P.A. BRITANNIA

SUMMER timetables for the 1958 summer tourist season in Europe will take effect on April 1, instead of the middle of April as previously and they will remain effective until October 31. This decision, by the airlines operating in and through Europe, to extend the peak travel season is based on increased demands for their services experienced over the past several seasons. It follows recommendations by the European Tourist Commission and other tourist bodies. Introduction of European summer air travel timetables has heretofore coincided with the beginning of British Summer Time. This year they will start at the same time as the date agreed for changes in fares and rates by the International Air Transport Association traffic conferences. The airlines feel this will be of considerable help to tourist agents and the general public in determining advance arrangements for travel and will simplify the publication of tariff and traffic documents.

Traffic at Dublin

Aircraft movements at Dublin Airport in the last quarter of 1957 totalled 5,019 of which 4,408 were concerned with air transport. Of the 87,298 passengers handled, 825 were in transit, as were 6 tons of the 1,850 tons of freight.

Aer Lingus Sells DC3

Aer Lingus has sold the first of its fleet of 13 DC3 aircraft. The purchaser was the Williamson Diamond Corporation of Tanganyika, and the aircraft was flown to its new owner from Dublin on January 10. The delivery of Viscount aircraft to Aer Lingus in the past 18 months had already allowed the company to dispose of two DC3s last year.

Lockheed Jetstar Development

The Lockheed Aircraft Corporation recently announced seven proposed military versions of the new Jetstar powered by two Bristol Orpheus engines. The 10-passenger aircraft has "exceeded expectations" in intensive company flying tests just completed in California, and is now to be tested at Edwards Base, California, for two or three weeks by the United States Air Force.

K.L.M. Services Extended

As from January 8, K.L.M. (Royal Dutch Airlines) increased the frequency of its Amsterdam—Houston (Texas) service, to a thrice-weekly operation, by extending its Wednesday flight to Montreal. Another K.L.M. route extension has been that of the four times weekly New York—Curacao service, which now flies on to Aruba twice weekly. The extension followed requests from oil refinery companies.

Q.E.A. Starts Round-the-World Service

On January 14 two Lockheed Super Constellations of Qantas Empire Airways left Australia, one flying eastwards from Melbourne to Sydney, Nandi, Honolulu, San Francisco, New York and London, and the other left Sydney on the Kangaroo Route across Southern Asia and the Middle East. Both aircraft were due in London on January 16. This marked the inauguration of the Q.E.A. round-the-world service.

Edinburgh—Isle of Man Service

Plans for the operation of a service between Edinburgh and the Isle of Man have been announced by the northern division of Silver City Airways. The service will commence on June 1, 1958, and will operate on Fridays and Sundays. Flight time for the 140 miles between Turnhouse Airport, Edinburgh, and Ronaldsway Airport, Isle of Man, will be 70 min., and 17-seat de Havilland Herons and 44-seat Bristol Wayfarers will be used. Fares will be £5 5s. single and £8 15s. return.

First C.P.A. Britannia Flies

The first of five Bristol Britannia Series 310 aircraft which Short Brothers and Harland is building for Canadian Pacific Airlines made its maiden flight from Sydenham Airport, Belfast, on January 11. The aircraft, flown by a crew comprising both Shorts and Bristol staff, was airborne for 2¾ hr. Shorts is to be responsible for fitting out the C.P.A. Britannias and will complete the production flight test schedule. In the case of the first aircraft it will also handle flight clearance of an American airborne radar system (the Bendix Type RDR-1).

British Airports in October

In October, 1957, the number of passengers handled at United Kingdom aerodromes was 490,456, an increase of 11 per cent over October in the previous year. The total number of air transport movements was 23,023, 0.2 per cent more. Freight on and off loaded amounted to 11,197 short tons, a decrease of 14 per cent and mail set down and picked up also decreased by 6 per cent to 1,515 short tons. At London Airport there were 9,202 air transport movements, an increase of 7 per cent over October, 1956, and 274,270 passengers were handled, an increase of 8 per cent. Airports at which passenger traffic increased considerably over the previous year were Ferryfield (Lydd) 120 per cent, Southend (Rochford) 43 per cent, Manchester (Ringway) 26 per cent and Glasgow (Renfrew) 20 per cent. Other substantial increases in passenger traffic were at Southampton Water by 86 per cent to 951, Blackbushe by 45 per cent to 10,782, Blackpool (Squires Gate) by 27 per cent to 1,066 and Aberdeen (Dyce) by 21 per cent to 3,393. Bristol (Lulsgate Bottom) traffic showed an increase of 28 per cent over Bristol (Whitchurch) traffic in October, 1956.

Aerlinte to Start in April

Mr. J. F. Dempsey, general manager of Aer Lingus and Aerlinte Eireann, has stated that the Irish transatlantic airline will start operations as early as possible in April. It will be a member of the International Air Transport Association. Every Aerlinte flight will call at Shannon, and then go on to Dublin, irrespective of whether there are any passengers from Shannon. Mr. Dempsey said that even if no passengers wished to go on to Dublin there probably would be outgoing traffic waiting there. Dublin Airport would take Super-Constellations, but they would not be able to take off fully loaded from there, and would refuel at Shannon. The ultimate aim of Aerlinte, Mr. Dempsey said, must be to own and to operate its own aircraft. The three machines that would be operated under a "wet lease" from Seaboard and Western were Lockheed 1049-H Super-Constellations. They would be fitted with 103 passenger seats, but because there would be no refuelling stop at Gander, the normal passenger complement will be from 90 to 97. The trip to Shannon from New York would take 10 hr. and the westbound flight would take 12 hr. The airline was anxious to operate to Boston and would extend its service as soon as this was practicable.

EASTERN REGION TRAFFIC MANAGEMENT

S. G. Hearn

Mr. S. G. HEARN, O.B.E., M.Inst.T.

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As already indicated in MODERN TRANSPORT Mr. Sydney George Hearn officially assumed the appointment of assistant general manager (traffic), Eastern Region, British Railways, on January 1, after holding the post of chief operating superintendent, Western Region, since January 1, 1956, and previously the similar position on the London Midland Region from 1951. He joined the Great Western Railway in the Plymouth division in 1911. After four years' military service in the 1914-18 war he was nominated in 1921 for special training, being the first traffic department candidate so selected, and gained further experience in the goods, traffic, motive power, signal and docks departments, following which he was engaged on special duties in the offices of the general manager and superintendent of the line. He was appointed junior assistant to the divisional superintendent, Newport, in 1930, chief clerk to the divisional superintendent, Worcester, in 1933 and assistant divisional superintendent, Newport, in 1936. Two years later he went to Gloucester as divisional superintendent thereafter becoming assistant to the superintendent of the line in 1940, operating assistant in 1941 and principal assistant in 1945. In 1946, he became assistant superintendent of the line, a post redesignated assistant operating superintendent, Western Region, in October, 1948. In May, 1951, he transferred to the London Midland Region as operating superintendent, an office later redesignated chief operating superintendent, and it was at the special request of the British Transport Commission that he returned to Paddington in 1956 to succeed Mr. Gilbert Matthews. His new appointment results from the pending translation of Mr. H. C. Johnson to the position of general manager, Eastern Region, to succeed Mr. C. K. Bird and his responsibilities will be considerable under the new organisation in that region. Mr. Hearn is a former member of the council of the Institute of Transport, and a vice-chairman of its Metropolitan Section, having previously been a member of the committee, 1953-56. He was selected by the Railway Executive to visit the U.S.A. in 1950 as operating member of a party studying railway working conditions under the auspices of O.E.E.C. (Organisation for European Economic Co-operation), and has also been a member of operating study groups which visited France. He was made an O.B.E. in the New Year Honours of 1948 and in the Engineering and Railway Staff Corps, R.E. (T.A.) he holds the rank of lieutenant-colonel.

BUSES IN CEYLON

Nationalisation Crisis

LACK OF RESOURCES

PUBLIC road passenger services in Ceylon, which were all nationalised by the Government on New Year's Day, are faced with a crisis that threatens to strangle the Government's first nationalisation venture at its very birth, unless more funds, more buses, more trained personnel, and more equipment are immediately forthcoming. The crisis is reported to affect all the bus services throughout the country; they were operated by 77 different undertakings which were taken over by the Ceylon Transport Board on behalf of the Government on January 1.

Although it was private enterprise that introduced bus transport to Ceylon over three decades ago, the stresses of the 1939-45 war imposed a severe strain on available resources in view of the shortage and increased cost of buses and spares. This hindered the private operators' efforts to meet the demands of the ever-growing road passenger traffic. By the postwar period it extended to areas that had previously been inaccessible to the rural folk.

Low Fares

The low fares, fixed at 4 cents a mile, were found to be totally inadequate to meet the increased cost of vehicles and spares and other equipment, all of which was also in short supply. The Government paid no heed to the private operators' insistent demand for an adjustment of bus fares to meet the rising cost of bus purchase, maintenance and repair, and the enhanced salaries and wages bills, during and after the war. Disregarding these difficulties of the operators, the bus travelling public, backed by the popular press, set up a persistent agitation against private operators, whilst Leftist politicians took the cue to insist on bus nationalisation as a vote-catching plan.

It was in this atmosphere that the general elections came to be held in 1956, when one of the election pledges of the present People's Government on which it went into power in April of that year was the promise to nationalise buses. That was 21 months ago. One year later, the Government appointed the Ceylon Transport Board to pave the way for bus nationalisation and January 1, 1958, was fixed as the date on which all the bus services were to be taken over by the Board simultaneously.

Advice Ignored

This decision was against the advice given to the Ceylon Government by the foreign transport experts consulted in order to produce a workable scheme of nationalisation. These experts included those from the London Transport Executive who made on the spot investigations in Ceylon and recommendations for procedure. Other experts were from West Germany, Czechoslovakia and India. A few weeks before the date fixed for simultaneous taking over of all the bus services, came the unexpectedly devastating deluge that overran three-quarters of Ceylon and wrecked the transport services of the submerged areas. Foolhardily, the Government stuck to its guns and the Transport Board was prevented from deferring the take-over or splitting it into stages. It therefore went through according to plan, in spite of communication with some areas being still impossible.

The impatience of the Government to nationalise the bus services was dictated first by fear of breaking its election pledge and secondly, it is widely suggested, by the lure of diverting to its coffers the allegedly fabulous profits supposed to have been made by private bus operators. According to obviously exaggerated estimates of Government spokesmen, the private bus operators throughout the island were said to be making a net profit of approximately £4,000 a day from the operation of their 77 bus companies in a country of nine million people. On this basis, the Government expected to secure from the nationalised bus services a net annual profit of over £1,440,000 or Rs.18,720,000, less income tax lost to the Government by the displacement of the bus companies.

Six Days of Misery

Within the first six days after the take-over the Board reported a grave deterioration in several units now under its control. In the upshot the Board has set its security service men on the trail of some operators and their alleged accomplices and reported that a number of buses taken over had been immobilised by handfuls of sugar being thrown into the fuel tanks. According to statements made by the Board, out of the 3,000 buses actually taken over from a registered total of 3,500 formerly owned by private operators, over 500 vehicles have already been rendered unroadworthy within less than a week of their acquisition by the Board.

In sheer desperation, the Board has issued an appeal to the public to be patient and put up with the serious inconvenience caused to them by the sudden withdrawal of over 500 buses from the roads. In addition to this, a further 500 or more vehicles have not been taken over by the Board from the private operators on the ground that these buses need extensive repairs for which the Board is ill-equipped either with technical personnel or spares. Thus, with a total apparently 1,000 buses less than the private operators had actually in service for the convenience of the travelling public (who were nevertheless vociferously clamouring for more and more), the Ceylon Transport Board is now on the horns of a dilemma. It has had to ask the travelling public to use alternative means of transport wherever possible, even though it may be inconvenient and expensive for them to do so.

Hailed and Reviled

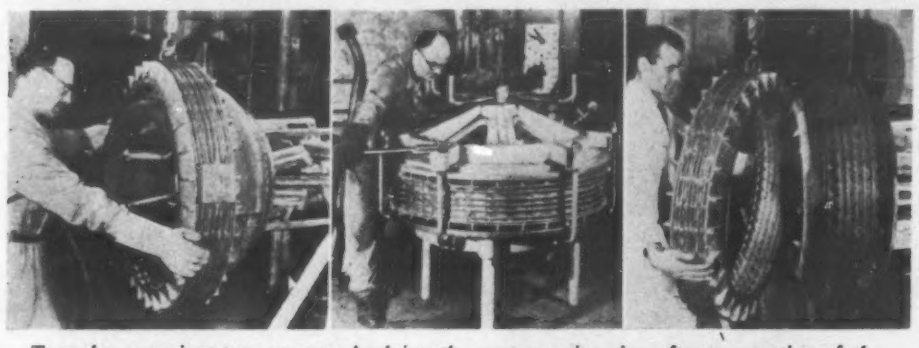
Whilst the nationalisation of the bus services has been hailed by the majority of the populace and members of both Houses of Parliament, the big question raised among thinking men is why the Government put the cart before the horse by first nationalising the entire bus service of the island simultaneously, instead of in gradual stages as in other countries where nationalisation had been effected. Why is it only now seeking avenues for getting together the required finance, trained personnel, vehicles and equipment, indispensable to the successful operation of its nationalisation scheme? These steps should have been planned and acted upon, it is felt, says our correspondent, before the actual take-over.

Formica, Limited, a subsidiary of Thomas De La Rue and Co., Limited, announces that all electrical and industrial laminates previously marketed as Delaron are now known as Formica Industrial Laminates, and the material previously marketed as Traffolyte Engraving or Printed Material will be known as Formica Engraving or Printed Material.

GIANT TYRE RETREADING

New Process Introduced by Tyresoles

SINCE its introduction into this country from the United States in 1934, the Tyresoles process of tyre reconditioning has achieved an international reputation for technical soundness, reliability and economy. A new development now introduced by Tyresoles, Limited, for commercial vehicle tyre sizes retains the simplicity and reliability of the original process while providing a greatly improved appearance. In the early days when retreading of tyres was considered by many operators to be suspect and unreliable, the Tyresoles organisation and process were to a considerable degree responsible for proving that retreading could be reliable and worth while, and throughout the last 23 years Tyresoles has played a leading part in establishing the retreading industry in many parts of the world. Today, most transport operators automatically adopt one form or another of tyre reconditioning and realise the valuable contribution an efficient retreading service can play in achieving economic operating costs.



Tyresoles new giant-tyre process: Applying the patent curing ring after preparation of the old casing and applying new tread rubber; the tyre and ring assembly mounted on the patent curing table for vulcanisation, and, extreme right, removal of the ring to reveal the new Tyresoles standard giant tread

For over 20 years the Tyresoles process was principally concerned with replacing the smooth tread and providing a further tread life without disturbing the original casing strength; during this long period, through the reliability of the process, an ever-increasing acceptance has been developed among users to whom low cost and trouble-free service meant more than appearance.

Advantage of Tyresoles Process

During service, the stress and strain to which tyres are subject tend to bring about tyre casing growth and retreading through orthodox moulds presents technical problems and disadvantages, which are not shared by the Tyresoles method of reconditioning. A smooth tyre which is otherwise sound invites the risk of casing distortion, conducive to premature failure when retreaded in a totally enclosed mould of the original size. While steps might be taken to reduce this risk to the minimum, the dangers of distorted beads, buckled treads, heavy undertreads, reduced non-skid depth, shoulder build-up and separation are present. With the Tyresoles process these problems have never existed as each tyre accepted for processing is treated individually and is cured in a curing ring selected with direct relation to the particular dimensions of the tyre being handled.

A further and equally important advantage of the process is that, through control of the heat applied to the sidewalls during the vulcanising process, the original casing strength is not impaired, as is often the case where the tyre is cured in a totally enclosed mould, so that the same heat content is applied to the thin sidewall and the heavy tread regardless of the effect of this heat on the cord body, particularly beneath the sidewall rubber.

Curing Ring

The new Tyresoles patent curing ring retains the important heat control feature but, unlike the original ring, the construction is now of die-cast segments which, without sacrificing technical efficiency or reliability, produce a considerably improved appearance. The ring process, or band process as it is popularly known in America, is claimed to cure the tread approximately in the way it is run during service, developing a tension or short-tread feature which contributes to cool running and long life by reducing the build-up of tread rubber immediately prior to the loaded rolling radius, automatically reducing friction and heat build-up.

Tread Designs

The new process is available from all the Tyresoles works in all popular commercial-vehicle sizes up to and including 9.00-20. Through the method of construction it has been possible to introduce additional tread designs and the new standard tread has been supplemented by a dual-purpose design suitable for both road and off-road work. Additional sizes are being introduced in both these treads and alternative tread designs will be considered for introduction as and when the need arises.

ARTICULATED TIPPERS

Heavy Duty York Trailers

AN important contribution to the field of large bulk carriers is made by York Trailer Co., Limited, Burnley, by the introduction of a range of tipping semi-trailers with payload capacities from 10-17 tons and body sizes up to 32 cu. yd. Designed by York Trailer Company engineers originally for the heavier vehicle weights permitted in Canada, these articulated tippers are produced in this country in collaboration with Pilot Works, Limited, Bolton.

Standard practice throughout the range is the location of specially designed four-stage twin rams at the front of the semi-trailer, a design which, it is claimed, results in considerable weight saving as well as providing greater stability. Also standard design on all models from 12 tons upwards is a 40-in. wide main frame with pressed main rails 15 in. deep and with 3½-in. flanges and a flat top. There is a gradual taper from the maximum depth to 9 in.

A semi-trailer tipper with light-alloy 24 cu. yd. body and York-Pilot gear, one of a range by York Trailer Company, coupled to a Foden tractor

over the fifth-wheel coupling, thus avoiding the possible weaknesses of a goose-neck. Tubular crossmembers and high-duty cast-steel hanger brackets are other standard features.

The Undercarriage

The York undercarriage embodies slipper springs and adjustable rubber-bushed radius rods which, it is said, ensure always-correct axle alignment, easier rolling and reduced tyre wear. York lightweight alloy vertical supports, with a screw operating in an oilbath, are used on all but the very lightest trailers, on which the Scammell automatic coupling is employed. To keep loading height as low as possible, the body longitudinal runners are arranged to fit outside the trailer main frame members, while the tipping hinge bearing is in the frame web.

Normal installation provides conventionally for a pump on the tractor unit powered by the main engine, with an oil reservoir also installed on the tractor and high- and low-pressure hose lines con-

(*Continued at foot of next column*)

NEW BUS SERVICES

In Jamaica and South Africa

TWO new bus services, one in Jamaica and one in the Cape Border territory of South Africa both make use of Leyland passenger chassis. The Jamaican service is the Kingston—Montego Bay route operated by Mayflower Bus Service, on which it has introduced a new bus finished to luxury standards. The chassis is the Royal Tiger Worldmaster incorporating the 150-b.h.p. underfloor diesel engine, Pneumo-Cyclic two-pedal transmission, power steering and air-pressure brakes.

A 30-ft. long all-steel body has been built by Jamaicans working under the supervision of representatives of the designer, Thomas Harrington, Limited, of Hove, Sussex. Special attention has been paid in the design to dustproofing and ventilation and to the reduction of road noise. Built at a cost of over £7,000, the vehicle is equipped with aircraft-type foam rubber seats for 41 passengers and is intended to provide maximum comfort on the long Kingston—Montego Bay route.

First Queenstown Service

A milestone in the development of Queenstown, a thriving up-country centre in the Cape Border territory of South Africa, has been passed by the formation of a new bus operating company and the inauguration of the town's first bus services. The

Harrington-designed Jamaican-built 41-seat body on Leyland Worldmaster chassis in service in Kingston, Jamaica

new company, Queenstown Bus Service (Pty.), Limited, has come into being largely due to the efforts of Mr. Arthur Dewing, whose father was one of the first transport riders in the area. He decided to start the service with modern vehicles and for this purpose, five Leyland Tiger Cub chassis incorporating Pneumo-Cyclic gearboxes were bought from Leyland Albion (Africa), Limited.

All-steel bodies for 55 seated and 12 standing passengers and designed for one-man operation have been built by Bus Bodies S.A., Limited. The initial services are reported to have been well supported and indications are that more buses will be required to cope with the traffic offering.

(*Continued from previous column*)

nected to the hoist on the trailer by quick-release couplings. A useful alternative arrangement offered by York Trailer Company is an auxiliary J.A.P. petrol engine mounted on the trailer driving the hydraulics pump through a triple V-belt drive. It is understood that British Road Services has ordered a number of York tipping trailers incorporating this feature in order that the trailers can be used with a variety of B.R.S. tractors.

Firestone
TRANSPORT

EXTRA MILEAGE TREAD
—Precision-balanced rib design increases service because tread wears slowly and evenly. Abrasion resistant rubber compound gives longer wear.

IMPROVED SHOULDER DESIGN
—Maximum protection against curb-scuffing. Deep grooves promote quick dissipation of heat.

SAFETY-TENSIONED GUM-DIPPED CORD BODY
—Tension drying of body cords eliminates tyre growth, tread cracking, and gives positive mating of dual tyres.

WIDER, FLATTER TREAD
—More rubber on the road gives more uniform wear, increases mileage and gives greater resistance to skidding.

RIM-FITTING BEADS
—Stronger bead foundation reduces bead and side-wall failure because excess chafing and flexing are eliminated.

DRIVE SAFELY

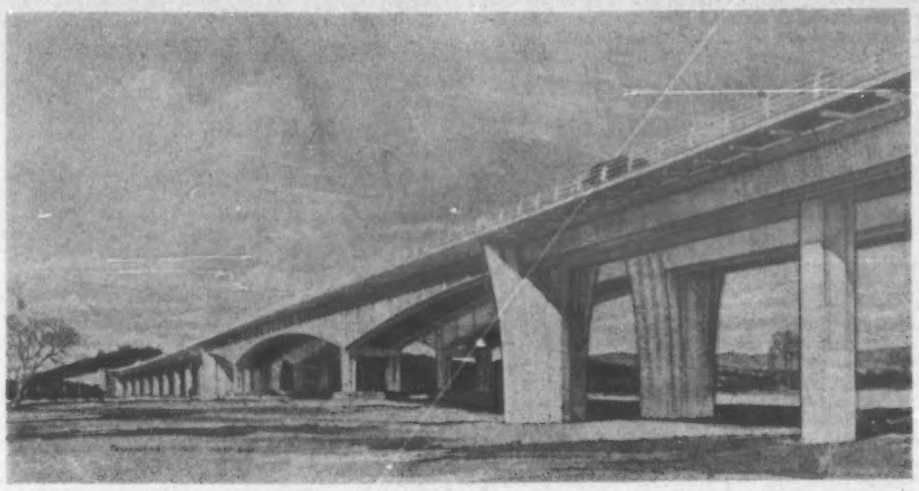
Experience Counts
44 factories throughout the world. Firestone total sales exceed £1,000,000 per day.

Firestone TYRES—
consistently good

THE ROSS SPUR MOTORWAY

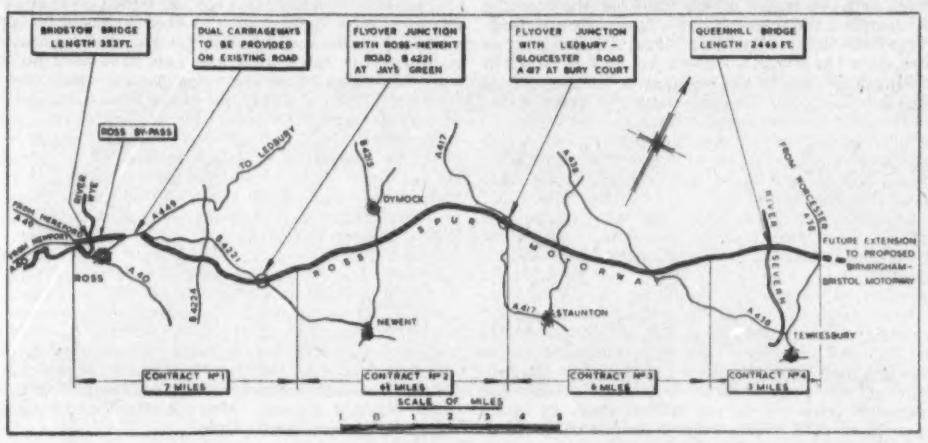
Faster Midlands–South Wales Route

THE Minister of Transport announced last week that work on the Ross spur motorway, an entirely new 22-mile road, will start in the spring. This road, which will form part of Britain's future network of motor roads, is designed to open up a faster and better route for traffic between the Midlands and South Wales. It is estimated to cost about £6 million. The Ross motorway was first included in the 1956-59 roads plan announced in February, 1955. Construction will occupy about 2½ years.



An impression of the Queenhill Bridge across the River Severn on the Ross spur motorway

This road, to be built for motor traffic only, will enable drivers between the Midlands and South Wales to avoid existing steep and narrow roads which are unsuitable for heavy vehicles. At its eastern end the Ross spur will connect with the Worcester—Gloucester trunk road, A38, north of Twyning. Eventually it will be extended to join the proposed Birmingham—Bristol motorway. The western terminal will be at a point on the Worcester—Ross trunk road, A449, about 1½ miles north-east of Ross.


BRIDSTOW BRIDGE LENGTH 353FT.
DUAL CARRIAGEWAYS TO BE PROVIDED ON EXISTING ROAD
FLYOVER JUNCTION WITH ROSS-NEWENT ROAD B4221 AT JAY'S GREEN
FLYOVER JUNCTION WITH LEDBURY-GLOUCESTER ROAD A417 AT BURY COURT
QUEENHILL BRIDGE LENGTH 2466 FT.
ROSS BY-PASS
TO LEDBURY
DYMOCK
ROSS SPUR MOTORWAY
NEWENT
STAUNTON
TEWKESBURY
FUTURE EXTENSION TO PROPOSED BIRMINGHAM-BRISTOL MOTORWAY
CONTRACT No 1 7 MILES
CONTRACT No 2 4½ MILES
CONTRACT No 3 6 MILES
CONTRACT No 4 3 MILES
SCALE OF MILES

The route of the new motorway, which is 22½ miles in length

No Intersections

It will have two 24-ft. carriageways and will have no connections with the existing road system except at its ends and at two flyover junctions, one at Jay's Green where the Ross—Newent road, B4221, This will be widened to accommodate two carriageways, uniform in width with those on the new roads. The by-pass will lie on the north side of the town linking the motorway with trunk roads A40 (leading to Newport) and A49 (leading to Hereford) at Wilton. The by-pass will also be provided with two 24-ft. carriageways, and although it will be constructed as an all-purpose road the number of side-turnings will be kept to a minimum. Where the by-pass crosses the Wye at Bridstow a prestressed concrete cantilever-type bridge will be built. This bridge will be 353 ft. long with a 203-ft. main span and two 75-ft. approach spans.

river and two side spans of just over 130 ft. each; these spans will be of steel construction with a reinforced concrete deck. The approaches will have nine spans on the west bank and 15 on the east bank, all of reinforced concrete construction and each spanning about 82 ft.

Between the proposed Ross spur and the Ross by-pass is a short length of existing road A449.

More Front-Entrance Double-Deckers

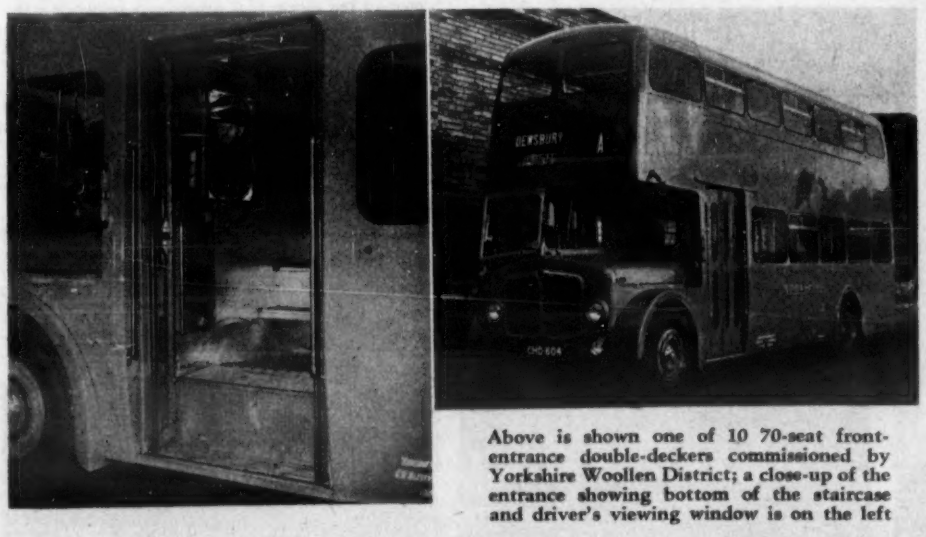
M.C.W. BODIES FOR YORKSHIRE WOOLLEN DISTRICT

A FURTHER company associated with British Electric Traction, Yorkshire Woollen District Transport Company, has introduced high-capacity front-entrance double-deck buses designed to help reduce platform accidents and also enable the conductor to concentrate on fares collection. Ten such vehicles just commissioned by the company are on A.E.C. Regent Mark V chassis, with synchromesh gearboxes and Clayton Dewandre air-pressure brakes, and bodied by Metropolitan-Cammell-Weymann, Limited. Built at Elmdon Works, the bodies have a seating capacity for 70 passengers, 39 in the upper and 31 in the lower saloon. The vehicles are 8 ft. wide and 30 ft. long, with an overall height of 14 ft. 5½ in. and an unladen weight of 7 tons 14 cwt.

The nearside front bulkhead window has been offset, and an additional bulkhead window in the nearside of the cab provides the driver with a clear view of the entrance so that he can safely control the power-driven double folding doors, which should be of considerable assistance in reducing step accidents. The doorway is 3 ft. wide and opens on to a larger-than-usual platform which gives useful circulation space for passengers, thereby improving the facilities for loading and unloading. The staircase is arranged from the platform on the offside of the body behind the driver's cab and leads to a central gangway in the upper saloon.

Heating in both saloons is provided through ducting from a Clayton Dewandre L6T heater unit. All seats, with the exception of the six seats over the rear wheel arches, face forward. The vehicles are finished in the standard Yorkshire red livery.

The introduction of the first of the new vehicles coincided with the first fall of snow this winter. Drivers were complimented on the way they handled their vehicles on roads that were ice-bound throughout the day and the local Press, at the end of the first week of operation, reported the passengers' verdict on the new buses: "Plenty of space and beautifully warm—particularly upstairs."



Above is shown one of 10 70-seat front-entrance double-deckers commissioned by Yorkshire Woollen District; a close-up of the entrance showing bottom of the staircase and driver's viewing window is on the left

Messrs. Dawson Bros. Ltd. of Gomersal, Leeds, wrote that this 24-ton Leyland 'Octopus' truck **"has done 199,580 miles, AVERAGES 11.5 MILES TO THE GALLON with oil consumption 1 qt. to 500 miles".**

Forget the mileage! At a mere 200,000 miles, any Leyland has scarcely touched the fringe of its full working life.

But if running costs are of primary importance to you (as of course they are), the wonderfully low consumption should strike a responsive note. Based on normal costings for **vehicles** of this capacity, they show savings with every wheel-turn.

As an afterthought, our customers state that, apart from a new gasket, no attention whatever has been necessary.

This trouble-free low-cost performance is in the accepted Leyland tradition; we expect every one of our trucks to be way out ahead in reliability, efficiency and economy.

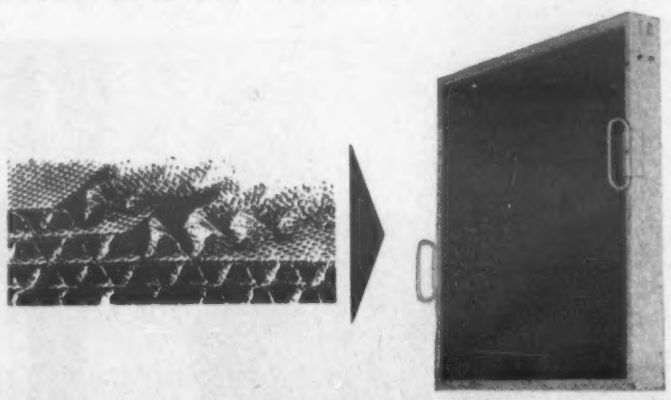
And judging from customers' reports, they are!

Leyland 24 ton 'OCTOPUS'

LOW FIRST COST - LOW FUEL COST - LOW MAINTENANCE COST

LEYLAND MOTORS LTD. Home Sales Office: 3 LYGON PLACE, LONDON, S.W.1. *Tel: SLOane 6117*
Export Division: HANOVER HOUSE, HANOVER SQUARE, LONDON, W.1. *Tel: MAYfair 8561*

Far-Air air filter



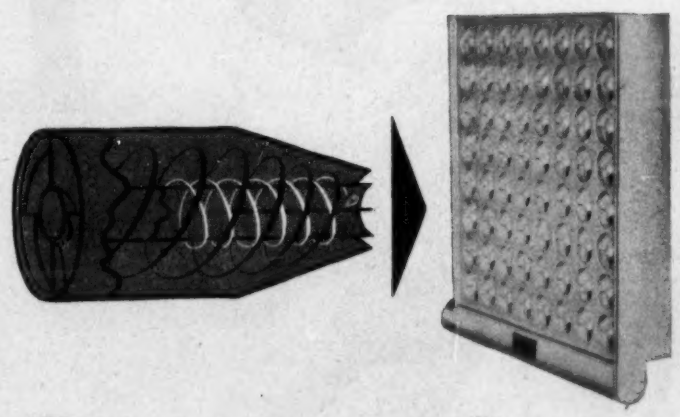
Maximum efficiency and minimum pressure loss are important characteristics of the FAR-AIR filter. Easily accessible and washable elements are used.

Their design is such that **a Far-Air element 20" x 20" x 2" will hold 25 oz. of solids of 2.54 sp.g. without loss of efficiency**

INTERMIT LTD. has set up a nation-wide filter cleansing service to provide low-cost maintenance.

An automatic 3-stage washer of FAR-AIR design is available for large installations, where the cost of a special machine is justified.

2 revolutionary new **filtration principles**



With extremely high efficiency on particles in the range below 5 microns, the ROTONAMIC multiple-tube cyclonic air cleaner is close to 100% efficient in the removal of larger particles.

There are no moving parts, and the ROTONAMIC therefore needs no maintenance. Solids separated from the air are simply collected from a bin.

Rotonamic

multiple-tube cyclonic air cleaner

FAR-AIR LICENCED MANUFACTURERS FOR EUROPE

INTERMIT LIMITED

BRADFORD STREET . BIRMINGHAM

Phone: Midland 7961

product of **Birfield** Group experience and resources

The Stockholm Underground

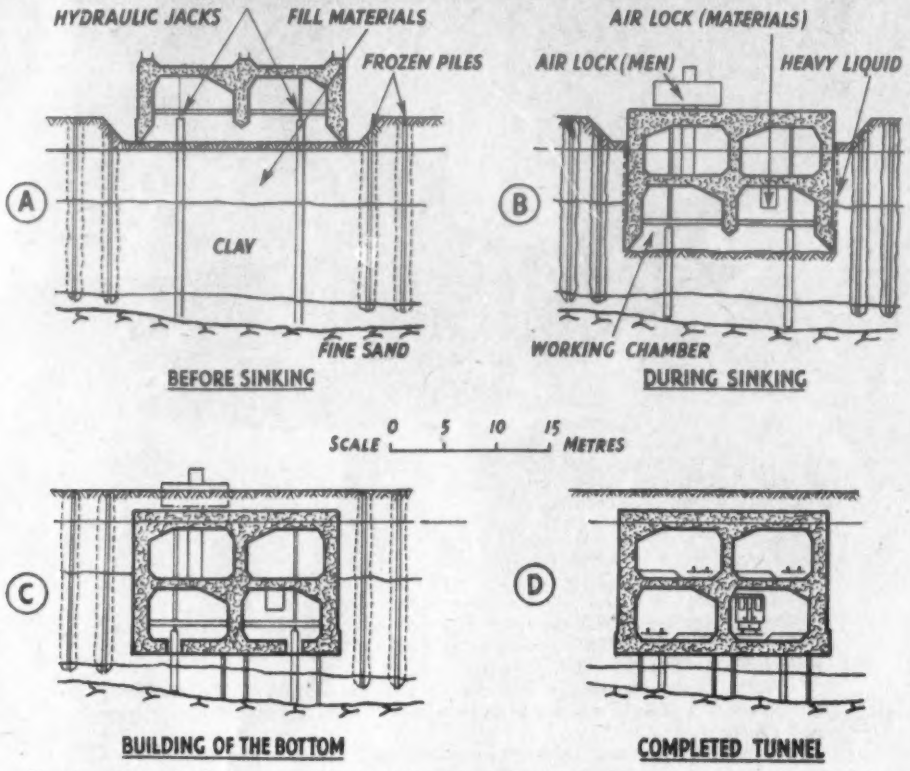
(*Continued from page 3*)

constructed to take four tracks. Eight of the 16 projected stations will be underground and present plans envisage completion by about 1965.

Construction Costs

Reference to the estimated cost must be guarded because one of the problems throughout the development of the system has been the steady rise in the financial requirements of each section. We are indebted to Stockholm Passenger Transport for figures adjusted to 1957 levels which compare the costs of the different types of underground work on the inner city section. A four-track concrete tunnel in coffer-dam and caissons cost kr.122 (£8.4) per metre, a four-track concrete underwater tunnel kr.74 per metre, a double-track concrete tunnel kr.11.5 per metre and a double-track tunnel in rock on Kungsholmen kr.6.2 per metre. Over the whole length the cost averaged almost kr.56 per metre.

Completion of the work has done much to relieve congestion at Slussen where, despite the famous clover-leaf junctions, there had been some congestion in peak hours owing to the very heavy interchange traffic between the southern section of the underground and the suburban train routes and the bus and tram services to and from the old city and Norrmalm. Elimination of the interchange so far as passengers to and from the south are concerned and the ability of the tram passengers to connect with the underground has reduced journey time to and from the city centre by 10-15 minutes. One of the city tram services—nine running between Sofia on Södermalm and Karlberg was withdrawn together with three bus routes, while other bus services were completely revised.



Showing the method of constructing a two-level tunnel on the section which will be shared with the planned south-west underground

Service Frequencies

The release of road staff by these changes made it possible to extend certain of the suburban bus services into the city centre. This had long been desired and has also had the effect of reducing interchange problems in peak hours. A bus service suspended during the war and never restored owing to staff and vehicle shortage has also been restored. In the peak hours trains operate every five minutes from Hökarängen and from Högdalen, combining to provide 2½ min. headway between Johanneshov and Alvik. Alternate trains from Hökarängen work to Hässelby Gård and Vällingby, while the trains from Högdalen work alternately to Akeshov and Alvik. In slack hours there is a 12-min. service between Hökarängen and Hässelby Gård and a similar frequency between Högdalen and Akeshov so that the Johanneshov—Akeshov section has a six-minute service. In peak hours there are 38 six-, seven- or eight-car trains and in slack hours the service is maintained by 17 trains. Journey time between Hökarängen and Hässelby Gård is 42 min. and the trains are scheduled at an average speed of 20 m.p.h. This involves maximum speeds of from 45 to 50 m.p.h. It will be recalled that all axles of the cars are driven and that cab signalling equipment is used. This, as a matter of interest, represents some kr.45,000 of the kr.500,000 which each car costs. It is calculated that 24,300 passengers can be carried in each direction between each pair of stations on the common section during the peak hours and this represents an increase of from 65 to 70 per cent in the flow through the old city (Gamla Stan) which has previously been the critical point in these periods.

The new section has involved the provision of two new stations at Centralen and Gamla Stan. The former is the largest station on the system and has platforms on two levels. The layout has, of course, been evolved to allow for the construction of the south-western underground and the 37-ft. wide platforms make adequate allowance for interchange traffic. There are two booking halls with seven accesses from the street, while there is a lift in addition to the escalators. A subway connection to Stockholm Central Station of the Swedish State Railways has yet to be finished. There is a variation on the clean but somewhat austere appearance of the other underground stations in Stockholm in that the walls of the upper platform are decorated, while two of the pillars on the platform have been ornamented and the stone benches have been specially designed. The night before the opening on November 24 the 2,000 men who had been employed on the tunnelling work were entertained on this platform. The extension of service coincided with the bringing into service of the new central control room at Gamla Stan which now controls the whole system.

Travellers Settle Down

The formal opening was attended by representatives of transport undertakings from all parts of Europe, including the Soviet Union, and the United States and the traffic which followed the opening well justified the operation of a three-minute headway on the common section. For the first two or three days there was a certain amount of delay in booking halls due to the revision of the fare structure to which reference has already been made. Further complications arose from the fact that, to lessen the impact of the increase upon regular travellers, various types of weekly and monthly season tickets are issued and subsidised to some extent by the municipality. It did not take long, however, for travellers to get the hang of the new facilities and their benefits are already apparent. The population which will be served by the western line will total some 150,000 while the southern branches will serve approximately 210,000. This matches reasonably well the calculated maximum capacity of the system at 40,000-48,000 passengers per hour in each direction with eight-car trains maintaining a 90 sec. headway. Daily staff requirement at the present time is 510, of which 140 represents train crews, 325 station staff, 25 traffic supervisory staff and 20 signal staff and linemen.

HISTORIC COMMERCIAL VEHICLE CLUB

Now in Being

IN London on Tuesday, formal inauguration took place of the Historic Commerical Vehicle Club as the culmination of a series of meetings that have taken place between interested parties since the rally for old commercial vehicles at Beaulieu last July. Draft rules and constitution were agreed and elections to various offices and committee were made as follow: President, Sir Henry Spurrier (Leyland Motors, Limited); vice-presidents, Mr. J. E. Foden (Fodens, Limited) and Mr. W. G. Rootes (Rootes Group) with an invitation also to serve in this capacity to Mr. H. J. Scholes (British Transport Commission); and chairman, Lord Montagu of Beaulieu. Other officers and committee members are Messrs. Sparshatt, Atkinson, Pratley, Ingram, Mackenzie Junner, Adams, Fuller, Grey, Edwards, Shepherd and Ford. The object of the club is to promote and encourage interest in the preservation, ownership, history and running of historic commercial vehicles. A first rally has been provisionally arranged for May 31-June 1 next at Leyland Motors works, at the invitation of Sir Henry Spurrier. Applications for membership should be made to the hon. secretary, Mr. M. Atkinson, 70 Queen Alexandra Mansions, London, W.C.1.

COACHING STOCK

Recent Craven Products

IN July, 1954, Cravens, Limited, the railway rolling stock builder of Darnall, Sheffield, compiled a brochure illustrating carriages and wagons built during the postwar years. This has recently been brought up to date in a new edition which illustrates recent products for British Railways and various administrations overseas.

Among the former stock may be mentioned two-car diesel sets employed in the British Railways modernisation plan and the experimental B.R. first- and second-class coaches with luxury seating shown in the exhibition at Battersea last summer.

Overseas coaches include Kowloon — Canton second-class sleeping and open day carriages for 32 and 64 persons respectively; for the same railway 120-passenger third-class open cars have been built and some third brake and luggage cars which offer 67 seats. For the 3 ft. 6 in. gauge Ghana Railway there were supplied a series of 60 ft. 11¼ in. coaches with almost identical shells for various purposes. A first-class compartment coach seating 20; a 52-seat second-class car; a composite for 12 first- and 25 second-class passengers; and a 92-seat third. There is also a brake and baggage van and a combined mail, brake and baggage van. The Ghana Railway has had a handsome five-coach train unit built of lightweight components, weighing only 109 tons. A Nigerian Railway restaurant car for 12 persons, contains also kitchen and a buffet compartment.

For the 3 ft. 6 in. gauge South African Railways and Harbours Cravens, Limited, has recently provided a number of 96-passenger 60-ton 3,000-volt a.c. motor coaches which are being employed on the Cape Western system. Metropolitan-Vickers electrical equipment is employed.

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Precautions : No practical security measure is overlooked, and careful precautions are taken to safeguard perishable or valuable goods. The 24-hour engineering service — on call all over Britain — ensures that all equipment is kept in tip-top condition by planned preventive maintenance. B.R.S. aim at reliable services for you and safety for the public.

Behind the scenes : A teleprinter network links all B.R.S. depots throughout Britain and speeds communications. Special instructions are passed over it to ensure that your needs — and those of your customers — are properly cared for. B.R.S. realise how valuable customers are — to you and to them.

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British Road Services

Look up your nearest depot in your local telephone directory

LOCOMOTIVE OVERHAULS

Conversion of Stratford Shops Progresses

AFTER the first orders for diesel-electric main-line locomotives had been placed with the contractors by the British Transport Commission, the Eastern Region, which was to receive 80 such locomotives, considered it essential for successful running to have modern repair facilities available, to deal with the locomotives. Accordingly, in 1956, a plan was drawn up for the conversion of the engine repair shop at Stratford, from steam to diesel working; this was approved and work commenced last July. As all 80 locomotives and others would eventually be operating in the Eastern Counties, Stratford was considered the most suitable place to provide heavy repair and storage facilities.

Access platforms placed around one of the Brush A1A-A1A mixed-traffic diesel-electric locomotives in the Stratford shops

The main assets of this building, as far as diesel-electric locomotives are concerned, are its large area, a longitudinal shop 450 ft. by 150 ft. wide and 40 ft. high and its excellent crane facilities, there being five overhead cranes, four of which have a capacity of 40 tons and the remaining one of 10 tons. The building itself, completed shortly before the beginning of the 1914-18 war, was in a state of good repair externally and internally, but its adaptation for the repair of diesel-electric equipment, after it had been catering for the general overhaul of steam locomotives and tenders, has necessitated a large amount of work to obtain the high standard of cleanliness necessary for maintaining the new traction equipments.

Bay 1 of the engine repair shop showing the last of the steam locomotives under repair; right, Bay 3 with the already existing facilities for dealing with diesel shunters in the foreground

Layout of Shop

Bay No. 1 will handle main-line diesel-electric locomotive repairs. It has space for six complete overhauls plus casual repairs. On the centre road, at one end of the shop, an Atlas type profiling machine for reforming tyres in situ is being provided to enable tyre profiles to be reformed in a few hours without dismantling. Nearby is a test unit capable of absorbing 2,000 h.p. so that engine output can be tested before a locomotive leaves the shop. Mobile platforms built of aluminium tubing provide working spaces at suitable heights and were supplied by Access Equipment, Limited.

Half of the centre bay, giving a space of 240 ft. by 50 ft. is allotted to the main stock of stores and spare parts. It will accommodate all the spares purchased by the Eastern Region for the six types of diesel-electric locomotive and will serve as a main stores depot. The stripping and repair of bogies are to be carried out in the remaining portion of this bay which also accommodates machine tools, including the wheel lathe which is complementary to the Atlas machine for turning new tyres or wheels removed from bogies, tyre furnace and tyre lip rolling machine.

A diesel engine section for the stripping, cleaning and overhauling of diesel engines is provided in Bay No. 3, with fabricated beds designed to accommodate any of the six different types of power units as well as degreasing tanks, Parawash equipment, Colosyl bath and jib cranes over the engine beds. The electrical section caters for repair to main and auxiliary generators, traction motors and control gear. A d.c. supply from a motor generator will provide power for testing control gear and traction motors. This section also contains battery charging sets and portable machine tools. Heavy repairs to diesel shunting locomotives will also continue to be carried out in a portion of this bay.

The heating system employs radiant heat created by water under high pressure fed by an automatic oil-fired boiler of the wet back double pass type. A system of this kind gives complete freedom of functional use of the entire shop floor space and at the same time provides conditions for clean working in the shop in that dust movement is kept to a minimum, together with maximum economy in the use of fuel. The employment of radiant heating also maintains the apparatus in the working spaces in such a condition as to prevent corrosion taking place and gives equable temperature conditions at various working levels.

Work on the conversion is proceeding rapidly and is generally to the requirements of Mr. K. J. Cook, chief mechanical and electrical engineer, Eastern and North Eastern Regions. It is anticipated that the scheme will be completed by the summer.

New Fuel Injection Shop

FOR EASTERN COUNTIES

AT the present time the fleet of the Eastern Counties Omnibus Co., Limited, numbers 684 buses, including the following makes of engines: Gardner, 616; Bristol, 39; Leyland, 19; with 10 miscellaneous units. A new fuel injection section, with a staff of seven, has just been set up at the company's central works in Norwich, where all fuel pump and other unit overhauls are carried out. Unit changes take place at 240,000 miles; docks are carried out at 40,000 miles at the district workshops at Norwich, Ipswich, Peterborough and Cambridge. Sprayers are changed at 10,000-mile intervals. Depots and district workshops do not do any stripping of fuel injection equipment. All fuel pumps are sealed. The pumps are changed at each dock for calibrating and phasing and service pumps are sent to district workshops in special boxes. The equipment for maintaining the company's fuel pumps, injectors, etc., is summarised below.

Views of the new Eastern Counties diesel shop showing work benches and, right, injection pump test equipment

Dust-proof Room

The fuel injection department at Norwich is dust proof. It is equipped with strip lighting and there are large windows along three walls. The walls are tiled with grey mottled glazed tiles and cream glazed tiles above the dado, to give extra reflected light. The interior roof is lined with acoustic material. The flooring consists of red tiles. This not only makes for easy cleaning of the premises but induces scientific cleanliness in the handling of the work.

The equipment of the injector test and maintenance section includes a Merlin Servicemaster, an injector spring tester, a Myford ML7 lathe, a Hartridge nozzle test bench, a Hartridge microscope and a nozzle lapping machine. In the fuel pump test and assembly maintenance section there is a Gardner calibrating machine, Hartridge NUE test bench, an element comparator test unit, a Hartridge bearing press and a special type cleaning tank designed for the job.

It is of interest that the Norwich and District Accident Prevention Council gives an annual award of a shield for tidiness in factories as part of its campaign under the slogan "Tidiness for Safety." The works of the Eastern Counties Omnibus Company gained this award jointly with another factory in 1956, but were the sole winners of the 1957 competition, a tribute to the keenness of the men under the chief engineer, Mr. J. F. Wood.

FOR MAIN LINE FREIGHT DUTIES

MORE DIESEL ELECTRIC LOCOMOTIVES FOR BRITISH RAILWAYS

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They are fitted with

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BRAKE EQUIPMENT

Combined vacuum-air braking is fitted, with air brakes on the locomotive operated, through a proportional valve, in conjunction with the vacuum brakes on the train controlled by the driver's vacuum brake valve. There is a straight air brake valve to control the locomotive brakes when required.
The equipment includes deadman's control, sanding, whistle, and engine control.
Air is supplied by a CM38 compressor, and the vacuum by two 4V110 exhausters.

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OUT OF PRINT

We regret to announce that the three very successful MODERN TRANSPORT publications "Practical Railway Operating," "British Railway Operation" and "Unification of British Railways" are completely out of print.

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Previously three or four men required a full day.

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SITUATIONS VACANT

NORTH WESTERN ROAD CAR COMPANY, LIMITED, require Technical Assistant to the Chief Engineer. Training in automobile engineering is essential and applicants must hold Ordinary or Higher National Certificate.

Applications, addressed to the General Manager, North Western Road Car Co., Ltd., Charles Street, Stockport, should be received not later than January 31, 1958, and should give full details of age, previous experience, and technical qualifications.

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OFFICERS with experience in transport and movement are required for service with Royal Engineers, Army Emergency Reserve, Transportation and Movement Control units. Fifteen days training annually. For details write to HQ AER Longmoor, Liss, Hants.

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MINIATURE BUFFETS INTRODUCED

In B.R. Second Class Coaches

A MINIATURE buffet providing a light refreshment service and built into an ordinary second-class passenger coach has been developed by British Transport Catering Services. It has been designed for use on certain services where a special catering vehicle cannot be provided,

One of the new miniature buffets provided in second-class coaches of the Eastern Region

and also to augment or replace existing restaurant car facilities, as necessary. Its compactness is indicated by its being only 12 ft. 6 in. long.

Twelve vehicles are at present being equipped with the buffets and the first of these was introduced on *Flying Scotsman* between Kings Cross and Edinburgh on January 13 to augment the regular restaurant car services on this train.

As further second-class vehicles are converted to include the buffets they will be introduced on other Eastern Region services between London Liverpool Street and Cambridge, March, St. Ives (Hunts) and Norwich.

NEW L.T.E. STOCK

Metropolitan and Circle Lines

ORDERS for new Underground railway rolling stock are to be placed by London Transport with the agreement of the British Transport Commission. The trains will be used to renew existing rolling stock which is due for replacement and to improve services. For Metropolitan Line services to Amersham, Chesham and Watford, 248 new cars are to be ordered at a cost of over £5 million. The trains will be specially designed for the Metropolitan services. All seats will be in facing pairs on each side of a central gangway to enhance the comfort of longer journey passengers; layout will thus bear some resemblance to the experimental car, No. 17001, which was described in our issue of December 12, 1949. This was the third, it will be recalled, of the coaches produced in the postwar period, the others being Nos. 17000 (MODERN TRANSPORT, February 2, 1946) and 20000 (June 21, 1947). The seats will have higher backs, those on one side of the gangway accommodating space for two passengers and those on the other for three passengers. Racks for light parcels will be provided. In addition, the cars will have air-operated sliding doors and ample standing room so that they can handle heavy in-town traffic on the tunnel section.

Each train will comprise two four-car sets of two motor and two trailer cars. There will be three pairs of double sliding doors on each side of the trailer cars and two double sliding doors and one single for passengers as well as the motorman's door on each side of the driving motor cars. The new stock will have lightweight unpainted aluminium alloy bodies, rubber suspension and fluorescent lighting. It will replace the present electric and steam compartment coaches in use on the line.

Improved Services

It will be used to give an improved service to all stations on the outer part of the Metropolitan Line, with all eight-car trains instead of the present mixed six- and eight-car services. Passengers travelling beyond Harrow-on-the-Hill will have four more trains an hour in the morning and evening peak periods, with trains running an interval service. Delivery will be timed to begin with the electrification of the Metropolitan Line between Rickmansworth and Amersham, and Chesham (which is at present steam-operated) and the four tracking of present double-track Metropolitan lines between Harrow-on-the-Hill and Rickmansworth, which are planned to be completed during 1961.

On the heavily used Circle Line, peak-hour conditions are to be improved by increasing the length of all Circle Line trains from five to six cars. This will be achieved by adding to the District Line stock 13 R stock cars of the latest type which are now on order from Metropolitan-Cammell Railway Carriage and Wagon Co., Limited. With the rearrangement of certain existing trains and the conversion of some cars at Acton works, it will then be possible to transfer some cars from the District Line to lengthen the Circle Line trains.

★

CEYLON RAILWAY PLANS

Modernising the System

THE Ceylon railway system, which is owned and operated by the government, will come in for a high degree of modernisation during the next year or so. The implementation of the full modernisation plan will cost approximately Rs.30 million. About half this work will have been carried out by the end of 1958. The first stage of the modernisation scheme is to introduce 30 diesel trains into the suburban service. Each unit will consist of a power coach and three passenger coaches. Tenders have already been accepted for the supply of 15 motor coaches from Germany. The 45 passenger coaches for these are being turned out at the Ceylon Government Railway workshop at Ratmalana. The general manager, Mr. B. D. Rampala, intends to run these trains at 10-min. intervals during the peak hours.

Public Criticism

The Ceylon Government Railway has for a long time been the target of public criticism. The main complaints are that trains do not run to schedule; that they cannot cope with the rush during peak hours, and that they are a drain on the public purse. The seriousness of the third complaint could be understood when it is realised that the working of the railways showed a net loss at the end of 1956 of Rs.10,746,000. If there is added to this the interest and annuity payable on the annual sums voted by Parliament for capital expenditure, a grand total is reached of Rs.19,850,000. The railway authority has pointed out that the railways can never be made to pay their way so long as they are required to pay salaries and allowances at usual government rates —very much more than any commercial firm would pay. More than half the revenue earned by the railways is actually absorbed by the staff as would be evident from the latest available figures:

	Rupees
Salaries and wages	48,654,728
Fuel and coal	14,250,347
Permanent way material	4,179,317
Pensions and gratuities	7,122,699
Other expenses	14,557,209
	88,764,300

The revenue was only Rs.77,959,937.

A determined effort is being made by the management now to bridge the gap—or at least to narrow it down to the barest minimum—and with some success; last year the net revenue showed an increase of Rs.3 million.

Principal Proposals

To help the C.G.R. in this work, a railway team from the U.K. carried out an on-the-spot investigation and made recommendations for improving the railway service. The recommendations which are now being implemented—apart from the introduction of colour-light signalling—include use of train timing diagrams for main routes; greater use of crossing timbers under permanent way fittings; creation of avenues of promotion for staff in lower grades; bringing up to revised standard all curves to permit increased speeds; review of all machine tools and plant at way and works district depots under a policy of "scrap and concentrate"; extension of railway workshop capacity, construction of new carriage and wagon building shops, laboratory and research workshop, machine tool shop and millwright shop; remodelling of the station in Colombo; re-railing of the Batticaloa—Trincomalee light railway with heavy section rails; and the air-conditioning of the passenger coaches on the longest run, Colombo—Jaffna.

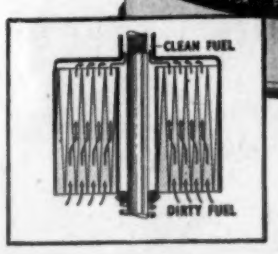
What happens inside?

If you cut the container of a used C.A.V. type 'F' fuel filter, remove the paper element and slice it through, you will see the sludge and dirt which has been prevented from reaching the high precision components of the fuel injection equipment.

The element is of spiral vee-form construction, the paper being crêped to provide continuous space between adjacent turns. Dirty fuel is confined to the underside of the paper coil, and filtered fuel to the upper side. The filtering surface is 560 square inches—much greater than that of other types of comparable size, so that a large volume of fuel can be filtered without choking.

The paper used has been most carefully selected and is specially manufactured for the job. It is resin-treated, and of high strength when wet. Paper elements have been subjected to boiling, low temperature, severe vibration and pressure tests, wjthout harmful effect. Most important of all, the paper effectively removes from fuel oil particles of a size which would cause most damage and wear to pump barrels and plungers.

In laboratory tests the new filter gave *over six times* the life of pump elements obtained with a cloth filter.



C.A.V. type 'F' fuel oil filter

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AP859

SOCIAL AND PERSONAL

North Eastern Region Appointment

TO succeed Mr. F. Grundy (recently appointed chief traffic officer of British Railways), the North Eastern Region has appointed as its chief traffic manager Mr. F. C. Margetts. Mr. Margetts was hitherto chief operating superintendent in the Scottish Region of British Railways.

* * *

Retirement of Mr. C. W. Harrison, manager of the lubricating oil department of the National Benzole Co., Limited, took effect on December 31.

* * *

Mr. J. A. Neale has been appointed a principal executive assistant in the office of the recruitment and training officer, London Transport.

* * *

Mr. D. J. Howse, M.Inst.T., is to retire on January 31 from the position of chief traffic manager, New South Wales Government Railways.

* * *

Former secretary of the Locomotive and Allied Manufacturers' Association, Mr. G. R. Curry has been appointed director of that body.

* * *

Mr. Leslie W. S. Grinling relinquished his executive duties and appointment as an assistant managing director of Coast Lines, Limited, with effect from December 31, but, as already indicated, will retain his seat on the board. Mr. Grinling was educated at Mill Hill School, Middlesex, and began his career as an apprentice with the old South Eastern and

Mr. L. W. S. Grinling

Chatham Railway and during the 1914-18 war served in France. By 1920 when he returned to civilian life he held the rank of lieutenant-colonel and was assistant director of Railway Transport. Mr. Grinling then joined the London staff of the Manchester Ship Canal undertaking where he remained until 1925 when he entered the service of Coast Lines in London. Later he was transferred to Liverpool as chief traffic agent and later as commercial manager and then chief commercial manager. In 1951 he became chief general manager and in March, 1952, was appointed to the board of the company. In October of the same year he became assistant managing director.

* * *

Mr. R. Antony Beckett, managing director of Beckett, Laycock and Watkinson, Limited, leaves at the end of the month for a 10-week trip to Australia, and New Zealand, returning via the United States and Canada where he will be visiting the subsidiary company.

* * *

The Minister of Transport has appointed Mr. F. G. Crabb, a nominee of the British Transport Commission, to be a member of the Transport Users' Consultative Committee for the London area in place of Mr. E. W. Arkle, who has resigned owing to his transfer to other duties with the Commission.

* * *

Mr. J. F. Harper, secretary of the Bristol Aeroplane Co., Limited, since 1953, has been appointed to the board of Bristol Aircraft, Limited, as assistant managing director. Mr. J. W. Reader Harris, who was assistant secretary of Bristol Aeroplane Co., Limited, succeeds Mr. Harper as secretary of the parent company.

* * *

Mr. John Oldham, chairman of Oldham and Son, Limited, left London Airport in a Britannia on Tuesday on another visit to Africa, his fourth visit to the company's African interests in less than six years. He expects to be in Africa for about six weeks, during which time he will visit plants at Johannesburg and Salisbury, Rhodesia.

* * *

A luncheon is being organised by his friends in the travel business on January 29 to mark the retirement of Mr. Maurice Vignon (see January 4). Applications for tickets should be made to Mr. Shirley H. James of the Shirley James Travel Service, Limited, 4 West Halkin Street, Belgrave Square, London, S.W.1.

* * *

The death occurred in New Zealand recently, at the age of 80, of Mr. H. W. Moore, who retired in 1942 from the position of divisional signal and electrical engineer (Scottish Division), L.M.S. Railway. He began his railway career with the Lancashire and Yorkshire Railway at Horwich and later served under that company's telegraph superintendent. He was a former member of council of the Institution of Railway Signal Engineers.

* * *

We record with regret the death, at the age of 76, of Mr. R. E. Thomas, M.I.C.E., M.Inst.T., who, after an apprenticeship to the chief engineer of the L.S.W.R., joined the staff of the Egyptian State Railways and was ultimately deputy general manager. From 1939 to 1945 he was chief inspecting officer in London to the Egyptian Government and in 1953 joined Messrs. Ranald J. Harvey and Partners, consulting engineers.

* * *

Sir Ivone Kirkpatrick, formerly Permanent Under-Secretary at the Foreign Office, has accepted the post of British president of the Channel Tunnel study group, a body appointed last year by the Suez Canal and other interested companies to investigate the feasibility of a tunnel under the Channel. The French president of the study group is Monsieur René Massigli, formerly French Ambassador in London.

Mr. C. D. Edsforth has been appointed general traffic manager of the Canadian Pacific Railway.

* * *

Mr. B. G. S. Hilton, former traffic manager of the Yorkshire Woollen District Transport Co., Limited, left £18,731 (net £18,564, duty £2,235).

* * *

Mr. N. C. McPherson, former North Eastern divisional manager of B.R.S., left £15,235 (duty paid £2,678).

* * *

The Manchester Ship Canal Company announces the retirement of Mr. W. Heywood, railway superintendent and Mr. R. Whittaker, chief of dock police.

* * *

We regret to announce the death of Dr. Rudolf Heberlein, chairman of the board of directors of Swissair since 1951 and a member of the board since 1947. He was 57.

* * *

Mr. W. Scott has been appointed to take control of a new section, national accounts, of the North British Rubber Co., Limited. His place as tyre sales manager, domestic replacement, is being taken over by Mr. F. M. Roodhouse.

* * *

Mr. F. R. Reeves, traffic superintendent (operating), London district office, South Eastern Division, B.R.S., has been appointed district manager, East Anglia district, South Eastern Division, succeeding the late Mr. A. Porter.

* * *

Mr. J. Buchan has been promoted general express agent for the Canadian National Railways. Mr. A. J. Sweetman becomes district express agent, London, and Mr. H. E. Adshead, district express agent, Liverpool. The express department now reports direct to the European general manager.

* * *

The area banquet and ball of the Metropolitan and South Eastern area of the R.H.A. will be held at Grosvenor House, Park Lane, on March 10, at 6.45 p.m. for 7.30 p.m. The Lord Mayor of London, the Lady Mayoress and the Sheriffs of the City of London will be present.

* * *

Mr. P. L. P. Ward, A.M.Inst.T., has been appointed assistant traffic manager of Jamaica Omnibus Services, Limited, and is expected to take up his new appointment in March. Mr. Ward is at present with Southdown Motor Services, Limited, as assistant to the area manager, Portsmouth.

* * *

We record with regret the death of Mr. S. M. Macadam, who served for 28 years with Cadbury Brothers, Limited, at Bournville. The whole of this time was spent in transport work and when he retired in 1947 he was head of the transport department. He was responsible for road transport at Bournville during the establishment of the depot delivery system and became head of the transport department in 1942. In 1945 he was president-elect of the Commercial Motor Users' Association. Mr. Macadam was 72.

* * *

Sir Leonard Lord, K.B.E., chairman of the British Motor Corporation, is to leave Britain shortly on a world business tour. En route to Australia he will visit Aden and Colombo, and while in Australia will make his headquarters in Sydney at the new B.M.C. plant. After five weeks in Australia he will return via Canada, calling at Auckland. Sir Leonard will make an extensive west-to-east tour of Canada starting from Vancouver, and calling at Calgary, Edmonton, Winnipeg, Toronto and Montreal, and his tour will be completed by a visit to New York.

* * *

Heavy commercial vehicle representative on the British motor industry goodwill mission which is now visiting Spain under the leadership of Marshal of the Royal Air Force Lord Tedder is Mr. D. G. Stokes, director and general sales manager of Leyland Motors, Limited. It will be recalled that an agreement was recently signed between Leyland and E.N.A.S.A., owner of the Pegaso factories in Spain, regarding the manufacture of lorries, buses and equipment with the object of increasing the export of Pegaso and Pegaso-Leyland products to world markets, especially Latin America.

* * *

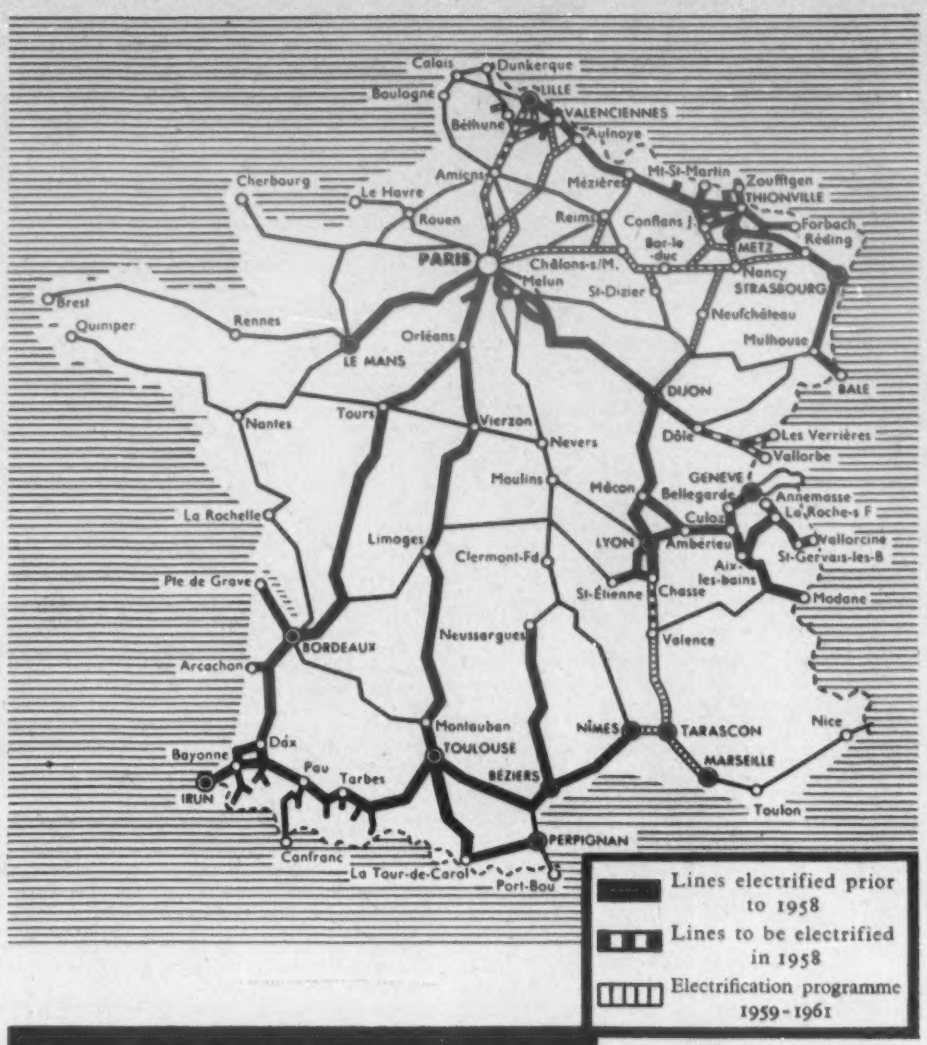
Mr. P. G. Price, M.Inst.T., who has been appointed district goods manager, Manchester, London Midland Region, B.R., formerly held the equivalent position at Bolton. Mr. Price joined the London and North Western Railway in 1918 in London, and after experience at stations and headquarters served successively as goods agent at Dudley and Burton-on-Trent. He followed this with appointments as assistant district goods and passenger manager at Bristol and Derby, and as assistant district goods manager, Leeds. He became district goods manager, Bolton, in 1952. On the opening of the Derby School of Transport in 1938 he was one of the first 50 students to attend.

Mr. P. G. Price

* * *

About 120 members of the staff of East Yorkshire Motor Services, all of whom have been with the firm for a quarter-century or more, had many reminders of old times when they gathered at the Hornsea Floral Hall for their annual re-union dinner with Mr. R. E. Cross in the chair. It was the third function of its kind under the auspices of the E.Y.M.S. "25" Association and at it there was a very representative attendance from the Bridlington, Driffield, Hornsea, Withernsea, Elloughton and Pocklington depots. Photographs of old-time vehicles, which used to ply in the East Riding years ago, were on display, as was a framed plaque recording the names of the many firms now incorporated in the E.Y.M.S. Submitting the toast of the company, Mr. H. A. Bonser of Hull, a member of the E.Y.M.S. traffic department staff, stated that the company had not had a very happy time during the past year, but one redeeming feature was the way in which they had steered through. In his reply, Mr. C. R. H. Wreathall, general manager, pointed out that apart from other difficulties they had to compete with other forms of transport, including diesel trains. Proposing a toast to the E.Y.M.S. "25" Association. Mr. S. A. Heron spoke of its growth since the first annual dinner three years ago. Mr. L. W. Simpson, the company's chief engineer, replied.

ELECTRIC TRACTION IN FRANCE



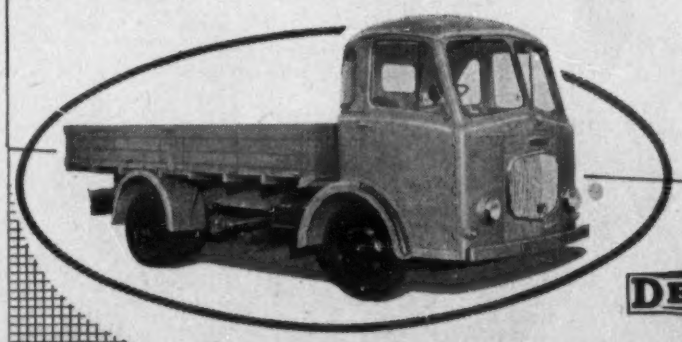
FRENCH RAILWAYS
179 PICCADILLY
LONDON, W.1

PB61b

LOW LOADERS

The Dennis range of low load vehicles is based on many years of specialisation in this field. Models are available in both the 3-ton and 6-ton payload classes with extra-short and extra-long wheelbases. In addition the 3-ton class may be equipped with special cab to reduce turning and swept circles to the absolute minimum.

A wide choice of tyre equipment, power units, forward or normal control is an outstanding feature of Dennis specification. Your Dennis Agent is specially qualified to discuss low-load vehicles and advise on the most suitable model for your particular application.



DENNIS

DENNIS BROS LTD GUILDFORD

IMPORTANT CONTRACTS

Electrification Progress

CONTRACTS have been placed by the British Transport Commission with British Insulated Callender's Cables, Limited, and British Insulated Callender's Construction Co., Limited, for the supply and installation of overhead conductor equipment for the electrification of 415 track miles in the Eastern and London Midland regions of British Railways. The new installations are to be made on 170 track miles between London Fenchurch Street, Tilbury, Southend and Shoeburyness; 105 track miles between London Liverpool Street, Enfield, Chingford, Hertford and Bishop's Stortford; and 140 track miles between Liverpool and Crewe. The last-named scheme is the second stage in the complete electrification of the main line between Euston, Crewe, Manchester and Liverpool. The contract for the first stage between Manchester and Crewe, upon which work is now in progress, was announced last year.

South Wales Docks Contract

The British Transport Commission (South Wales Docks) has placed a contract with the Penarth Pontoon Slipway and Shiprepairing Co., Limited, for the general reconditioning of steam hopper barge *G.W.R. No. 2*.

New Eastern Region Contracts

The Eastern Region of British Railways announces the following contracts:

W. and C. French, Limited, Buckhurst Hill, for precast prestressed concrete deck slabs and precast reinforced concrete beams for extension to Ilford electric train depot, and widening and reconstruction of bridge at Laindon Station.

Herbert Morris, Limited, Loughborough, for one Morris M.120 mobile crane for stores department, Doncaster.

W. and C. French, Limited, Buckhurst Hill, for construction of new steel-sheet pile quay wall and ancillary works at Town Quay, Harwich.

Westinghouse Brake and Signal Co., Limited, London, N.1, for equipment for automatic control of primary retarders at Temple Mills new marshalling yard.

London Midland Region Contracts

The London Midland Region of British Railways announces the following contracts:

L. Fairclough, Limited, Adlington, for renewal of 12 bridges, and reroofing sleeper tippler at Ditton sleeper depot.

Wellerman Bros., Limited, Sheffield, 3, for repair to brickwork at Grindleford End and shafts 1 to 4, Totley Tunnel between Grindleford and Dore and Totley.

Marple and Gillott, Limited, Sheffield, 9, for removal of redundant track and level crossing gates, Marston branches Nos. 1 and 3, Northwick.

Cellactite and British Uralite, Limited, Gravesend, for roof sheeting renewal over platforms Nos. 2, 3 and 4, Bolton Trinity Street passenger station.

John Booth and Sons (Bolton), Limited, for steelwork strengthening and extension to crane gantry on the Londonderry shed and improvements at Heysham Harbour.

North Western Gas Board, Crewe, for iron foundry heating, Crewe locomotive works.

British Bus For China

An introduction to the product of automotive engineering in advance of their own current techniques will be afforded to Chinese bus operators by a Leyland-M.C.W. Olympian which has just left London docks for China. The first Leyland bus to go to China for many years, the Olympian, which embodies a 44-seat chassisless body structure by Metropolitan-Cammell-Weymann and Leyland 105-b.h.p. diesel engine, Pneumo-cyclic semi-automatic transmission and dual-pressure diaphragm air-pressure brakes, is to be used by the Chinese Government Transport Authorities on inter-urban services based on Peking.

Auger Borer To Aid Electrification

To speed up the erection of masts to carry the overhead wiring for main-line electrification, the London Midland Region of British Railways has ordered an auger borer from Whartons Engineers, Limited, Elstree. This track-borne machine excavates 10-ft. deep holes alongside the track, taking less than two min. for each hole, and is followed by a crane which drops steel masts into the holes. One such machine, belonging to British Insulated Callenders' Construction Co., Limited, has been employed on work on the Manchester—Crewe section, but development of the Crewe—Liverpool section calls for an additional unit.

TENDERS INVITED

THE following items are extracted from the Board of Trade Special Register Service of Information. Inquiries should be addressed, quoting reference number where given, to the Export Services Branch, Board of Trade, Lacon House, Theobalds Road, London, W.C.1.

January 22—Union of South Africa.—South African Railways for two diesel-engined ARTICULATED TRACTORS having a g.c.w. rating of not less than 35,000 lb., with rubber-mounted trunnion-type semi-automatic S.A.E. fifth-wheel couplings. Tenders, endorsed "Tender No. F.2641: Mechanical Horses," to the Chief Stores Superintendent, P.O. Box 8617, Johannesburg. (ESB/31692/57.)

January 24—Union of South Africa.—South African Railways for one three-axle ARTICULATED TRACTOR to haul a semi-trailer of 77,000-lb. laden weight over rough country roads, with a maximum speed of 45 m.p.h. Tenders, endorsed "Tender No. F.7070: Road Hauler" to the Chairman of the Tender Board, P.O. Box 7784, Johannesburg. (ESB/748/58.)

January 30—Formosa.—International Co-operation Administration for three left-hand drive ½-ton VANS. Tenders to the Central Trust of China, Purchasing Department, 68 Yen Ping Nan Road, Taipei, Taiwan. (ESB/292/58/ICA.)

January 31—Union of South Africa.—South African Railways for 275,000 CONCRETE SLEEPERS and FASTENINGS for same. Tenders, endorsed "Tender No. 6825: Concrete Sleepers, etc.," to the Chairman of the Tender Board, P.O. Box 7784, Johannesburg. (ESB/31701/57.)

January 31—Union of South Africa.—South African Railways for a total of 60 COMMERCIAL VEHICLES ranging from ½-ton to 10-ton capacity. Photocopies of tender documents available from Export Services Branch, B.o.T., price 48s. (ESB/31700/57.)

February 3—Sudan.—Sudan Railways for 200,000 HARDWOOD SLEEPERS 6 ft. 6 in. by 9 in. by 5 in. Tenders to the Controller of Stores, Sudan Railways, Atbara. (ESB/31789/57.)

SHIPPING and SHIPBUILDING

Newport Delivery Floated

WEDNESDAY last week saw the floating at Newport (Mon) of the largest ship yet built by the Atlantic Shipbuilding Co., Limited, which builds by prefabricated methods in drydock there. She was the 4,100-ton cargo ship *Pinar del Rio* for Cuban owners and is the first of an order for four of similar tonnage. She will now be fitted out at the berth of C. H. Bailey, Limited. The *Pinar del Rio* is 334 ft. long and will be used to carry sugar to Gulf ports and to the eastern seaboard of the United States.

Bahrein Free Port

A FREE transit port at Bahrein on the Persian Gulf was officially inaugurated on January 2. Transit dues will be completely abolished and warehouse facilities have been expanded.

Mersey Docks Board Centenary

JANUARY 5 marked the centenary of the Mersey Docks and Harbour Board. At a meeting of the Board last week, Mr. M. Arnet Robinson, the chairman, said: "In the near future we hope to issue a book which will describe some of those activities and give an appreciation of the port as it stands today. We aim to celebrate with our friends this centenary year in appropriate fashion. We embark on the next century with our minds much occupied with problems, with great commitments and many tasks that are still incomplete."

Life on Board Tankers

CONDITIONS of service in tankers were recently discussed at a meeting of members of the tanker sub-committee of the Merchant Navy and Airline Officers' Association. Deck and engine-room manning in regard to the increasing size of tankers, leave at more frequent intervals, air conditioning, retirement age, swimming baths, cinemas, wives on board, transport from installations to the nearest railhead, and chart correcting were among the subjects discussed. Problems arising from the change in the size of the average tanker unit were also considered.

Faster Work at Ceylon

A COLOMBO port cargo handling unit which commenced operations this month has already set up a work record—1,200 tons per day. The undertaking given by the unit was to work at 1,500 tons per day, but the rains interrupted work. The unit took over the labour force of the Michael Fernando Stevedoring Company and the liquidated New Landing and Shipping Company. It has altogether a labour force of 1,200 men and is a nucleus of the Port Cargo Handling Corporation which will handle cargo in the port with 75 per cent Government participation. The Bill to convert the port into a corporation is expected to be presented in Parliament this month.

FINANCIAL RESULTS

NOTES on the trading results, dividends and financial provisions of companies associated with the transport industry are contained in this feature, together with details of share issues, acquisitions and company formations or reorganisations.

E. G. Brown

At the company annual meeting, Mr. Neil McLaren, chairman of E. G. Brown and Co., Limited, announced that it had continued to expand its commercial work and had entered into nuclear fields for the first time.

Decca Record

Net profit of the Decca Record Co., Limited, for year ended March 31, 1957, was £565,000 (£434,000) and the ordinary dividend is 43¾ per cent on capital increased by rights issue (same on smaller capital).

Dorman Long

The directors of Dorman Long and Co., Limited, report that net profit for the year ended September 30, 1957, was £1,305,721 (£767,875) and that £300,000 has been placed to general reserve. Ordinary dividend is 10 per cent (8 per cent) net.

Mr. G. R. H. Nugent, Joint Parliamentary Secretary, Ministry of Transport and Civil Aviation, was to fly to Cologne on January 16 to inspect the recently constructed experimental stretch of monorail. He was to be accompanied by officials of the Ministry, a representative of the B.T.C. and Sir Alfred Bossom, who is chairman of an executive group set up to develop this form of transport. The purpose of the visit is to assess the practicability of the monorail as a link between Central London and London Airport.

The Lister 7-b.h.p. twin-cylinder direct-injection air-cooled diesel engine, which is governed at 1,800 r.p.m. is now used in the well-known Lister Autotruck and is available as a replacement for the petrol engine. A single-plate clutch with carbon thrust pad is mounted directly on the engine flywheel and operated by means of a hand lever. Primary drive is by half-inch pitch roller chain through a gearbox with two forward speeds and reverse. There is gear reduction drive to the single front road wheel.

B.T.C. TRAFFIC RECEIPTS: PERIOD NO. 13—1957

	Four Weeks to December 29, 1957			Aggregate for 52 Weeks		
	1957	1956	+ or —	1957	1956	+ or —
	(£ thousands)			(£ thousands)		
PASSENGERS						
British Railways	9,578	10,225	— 647	138,546	126,915	+ 11,631
London Transport						
Railways	1,755	1,789	— 34	22,998	22,129	+ 869
Road services	4,308	4,301	+ 7	59,190	55,590	+ 3,600
Provincial and Scottish Buses	4,147	4,073	+ 74	57,540	56,630	+ 910
Ships	306	286	+ 20	6,895	6,333	+ 562
Total Passengers	20,094	20,674	— 580	285,169	267,597	+ 17,572
FREIGHT, PARCELS AND MAILS						
British Railways						
Merchandise and livestock	7,098	8,160	— 1,062	106,925	104,977	+ 1,948
Minerals	3,873	3,926	— 53	53,320	51,992	+ 1,328
Coal and coke	9,964	9,565	+ 399	127,664	126,039	+ 1,625
Parcels, etc., by passenger train	3,959	3,696	+ 263	51,352	47,422	+ 3,930
Collection and delivery, etc.	966	990	— 24	13,359	12,853	+ 506
Total Freight British Railways	25,860	26,337	— 477	352,620	343,283	+ 9,337
Others	3,875	3,981	— 106	55,224	55,687	— 463
Total Freight, Parcels and Mails	29,735	30,318	— 583	407,844	398,970	+ 8,874
Aggregate	49,829	50,992	— 1,163	693,013	666,567	+ 26,446

Comparisons are affected by the increases in rates and charges which have been authorised from time to time and by the consequences of the restrictions on oil supplies from November 7, 1956, to May 14, 1957, and by the provincial bus strike from July 20 to 28, 1957

THORNYCROFT

'TRUSTY'

'Trusty' maximum load 8-wheeler with Duramin body and cab, recently delivered to the repeat order of James Clark (Carriers).

The IDEAL 8-WHEELER

for the Operator

- Thornycroft designed and built 9.83 litre oil engine developing 130 b.h.p., and producing a lively performance with outstanding fuel economy.
- CHOICE OF TWO REAR AXLE DRIVES, 8 x 4 or 8 x 2.
- 24 ft. 3 ins. BODY LENGTH.
- BALANCE BEAM SUSPENSION.

for the Driver

- POWER ASSISTED STEERING.
- RE-STYLED CAB of new proportions gives first-class driving conditions.
- "ALL-WHEEL" AIR PRESSURE BRAKES.
- FIVE-SPEED GEARBOX AND OVERDRIVE.

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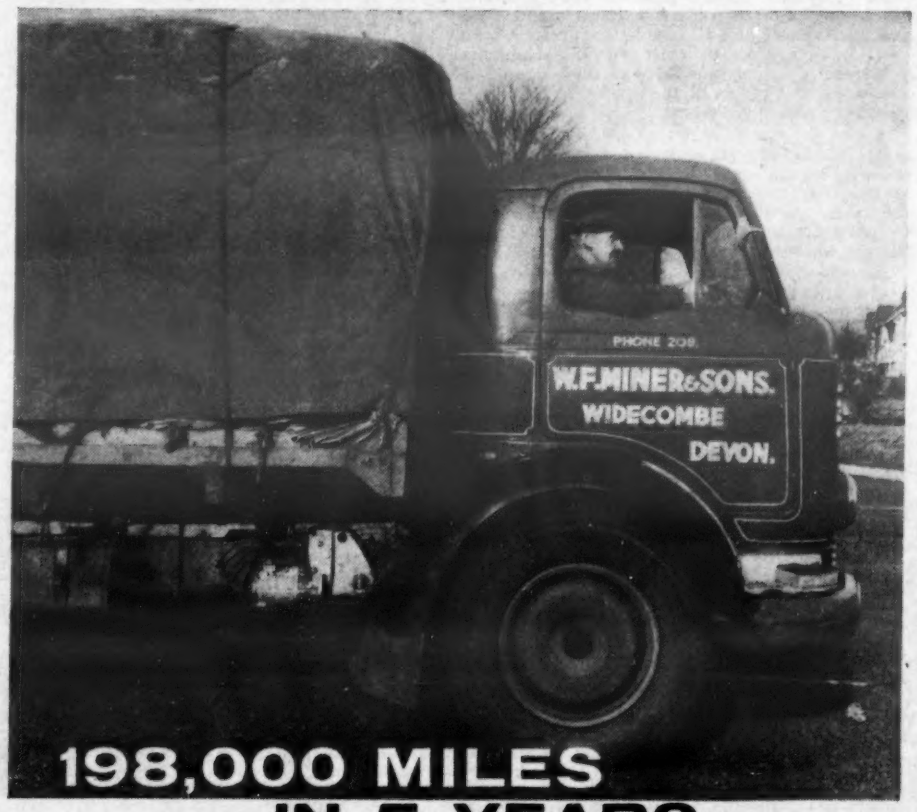

198,000 MILES IN 5 YEARS

—and still no need for a re-bore

W. F. Miner & Sons operate a long distance haulage fleet based at Widecombe-in-the-Moor, Devon. Recently they examined their 7-ton type QX Commer which had run on Shell X-100 30 from new and had then 198,000 miles to its credit. When the sump was removed the crankcase and internal compartments were found to be so clean and free from sludge that the sump was replaced without any work being done. Next the cylinder head was removed and cylinder bore wear was measured and found to be less than 1/1,000 of an inch wear. "In five tough working years, the only repairs done to this vehicle were to replace three exhaust valves", comments Mr. Miner. "It proves the wisdom of using only Shell X-100 for petrol engined commercial vehicles run under arduous conditions".

SHELL X-100 MOTOR OIL

FOR LONGER PETROL ENGINE LIFE

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